

THE  
SOUTHERN PLANTER.

Dedicated to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—  
*Xenophon.*

Tillage and Pasturage are the two breasts of the  
State.—*Sully.*

FRANK: G. RUFFIN, EDITOR AND PROPRIETOR.

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COMPACTING SOILS.

The communication below, from an Ex-Farmer, introduced by the accompanying letter of our friend G. C. Gilmer, is an exceedingly interesting one. We would be glad to know the author and to hear from him again.—[Ed. So. Pl.]

ALBEMARLE, JULY 6th, 1855.

*F. G. Ruffin, Esq.*

MY DEAR SIR: Enclosed I send you an article from an unknown friend of Berkely county, in answer to an article of mine, addressed to you, in the May number of the Planter. I esteem it a good piece, from which I think I have derived much benefit, and as the time is now rapidly approaching for seeding meadows, I have thought it my duty to present it, through you, to my brethren of the plough, that they too may be likewise benefitted. I think it would be far better if farmers would address each other over their own names and through your paper. I have no idea who the author is. I have no other means of thanking him for his kindness but through your paper, which I now do, with a most sincere wish that he will often favor us with such good articles upon all the various branches of agriculture. I have much to write to you of my experiments this year, all of which, so far, have succeeded up to my expectations. The one of guano, with wheat and lime upon the same wheat, was so far beyond my expectations that I had to call in my old friend fresh from the wheat land of Loudoun, to see it with his own eyes, that he might testify to its marked effect. I was so thoroughly satisfied of its effects that I shall try no farther experiments with it, but this fall shall seed my entire crop in the same manner. Having kept notes as to time and manner of seeding, of which I will write you for the August number or perhaps not earlier than for the September number, as that will be in time, and this is a busy season with

us who have to hold the plough or drive. With best wishes for your success, very truly yours,

G. C. GILMER.

All of my crop of wheat was seeded with guano, in the same manner and quantity; one half was limed, which half was the very best crop I have ever made.

G. C. G.

MARTINSBURG, BERKELEY, June, 1855.

*Geo. C. Gilmer, Esq.*

DEAR SIR: In the May number of the Southern Planter I notice an article headed, "A failure in a stand of grass and a reason for it asked." As the Editor of the Planter says, "he does not think the history of your case is given with sufficient minuteness for him to give an opinion," I have concluded to give you some of my crude notions in reference to it, and of agriculture, which I have acquired by many years of observation and experience in farming.

It has been my fate to cultivate, for the most of my mansion farm, a purely argillaceous soil, which I regard as the most difficult of all soils to cultivate successfully, as it is rarely more than two or three days at a time in proper condition for the plough and harrow.

While I am an advocate for moderately deep ploughing, where the subsoil is of such character when thrown up as to improve the surface soil, yet unless deep ploughing is succeeded by heavy and drenching rains, to dissolve the clods and condense the ground again into its almost natural condition, before the grain sown upon it vegetates, it will prove a disadvantage to the crop, and more especially with plants which derive their nourishment from near the surface, such as timothy, turnips, &c., with fine fibrous roots. I will give you some illustrations of the effect of pulverizing and condensing the soil: observe where the horses, in the plough are turned round upon the ploughed ground in finishing a land: it becomes pulve-

rized and condensed, and you invariably see the wheat and corn upon those spots first up, grow off rapidly and most productive, and have you not observed that where seeds accidentally fall in the small walks, made in the beds in gardens, that they are up sooner than those planted in the loose, mellow soil of the bed? It was my practice, in farming, to require the coverer of the corn to put but little earth upon it (mind you, an argillaceous soil) and to tread upon the hill as he passed to the next, to condense the earth upon it. Do you ask the reason? Unless done so the corn would not vegetate and come up until the hill became condensed by a heavy rain. In my first year's essay in farming my corn was from three to four weeks in coming up in consequence of being covered too deeply and want of condensing rain; this evil does not exist in light, loamy soils.

I will give you a history of several occurrences in my county. My neighbor, Mr. C., who is an experimental farmer, conceived the idea that if great depth of pulverized soil was given to corn for the roots to penetrate horizontally and at pleasure, that an extra yield might be grown upon almost any soil; and by way of testing his theory he caused a small field to be ploughed up, extra deep; afterward being well pulverized with the harrow, he had two furrows thrown together forming a ridge of a foot or more, in width at top, upon which the corn was planted, there being 15 to 18 inches of mellow pulverized soil beneath for the corn roots to flourish in, as he said. What do you suppose to be the result? first, it was an extra long time in coming up; when up it was a yellow, sickly looking specimen of vegetation; the usual cultivation was given it; the stock never attained more than three or four feet in height, had a mere shoot but was minus the nubbin, and did not yield one peck to the acre.

Upon the land, some years thereafter, the same gentleman has grown sixty bushels to the acre under a different kind of cultivation, he now takes his oldest, stiff, soddy, grass fields, turns over the sod flat with a three horse plough and with a stiek made in the form of an axe helve (but much larger) he causes a small opening to be made between the furrow slices every fourth row, drops his corn in the opening thus made, upon the solid earth, beneath the cut of the plough and kicks a little loose earth over the opening with the foot. The corn comes up vigorously, grows off, and as the vegetable matter contained in the sod decomposes, the lateral roots of the corn are nourished, kept moist and is not affec-

ted by drouth, and an abundant yield of corn is invariably the result. He then puts the same field in corn again the succeeding year without breaking up; he simply checkers it in the interval of the previous crop, but puts a part of a shovel full of manure or compost made of cobs, leaves, chip dirt and every kind of vegetable matter which he can collect, into each hill, cultivates with scrapers and never fails, even in harvest, if a heavy rain should then occur, to stop every hand, and run through his corn with scrapers and cultivators. He argues that the mere surface of the ground must be kept in a loose, friable condition, an inch or two deep, to prevent the escape of moisture by capillary attraction, which he says arises, during every night from the earth, even in the driest weather. I give you this as his doctrine.

On an adjoining farm, belonging to my neighbor R., which possesses an unusual quantity of bottom (or low land) for the size of the farm, say 70 to 80 acres, a large part of it is of calcareous character and had been in grass (God knows how long) and kept up by irrigation by its former owner, but was ploughed up by my neighbor R. and cultivated in corn and oats for many years. Finally, he determined to reset it in timothy, and said to me one day, about the first of August, (it was then on oat stubble,) that he intended to flush it up and sow it down in rye and timothy, and asked my opinion of the plan. I said to him, it won't do Captain, for the timothy, unless after you break it up and harrow it, you turn fifty or sixty head of your bullocks (he was an extensive grazer and feeder of cattle) and detail two of your servants to drive them over it continually for about two weeks to pulverize and condense it before you sow the timothy seed, if you want it to grow. He ridiculed the idea of ploughing upland and then tramping it hard again; he pursued his own judgment in its preparation. The fall was somewhat dry and the result was a total failure of timothy, and but little rye. A similar cause produced the same result in your field: deep ploughing, dry fall and want of condensation. Whenever the atmospheric air can penetrate around and below the roots of any plant, it must die.

I will now give you a case of my own. Some twelve or fifteen years ago on an adjoining farm of mine (slate land, the most part of it) I had occasion to have made a large number of rails and concluded to clear off a hollow (or drain) on the slate part of several acres (it abounded with large white oak trees and possessed a cold, potter's clay subsoil.) and

put it in timothy. It was very stumpy when cleared, with many large roots on and near the surface of the ground; so much so, that it was impossible to plough it, and I had the harrow tried upon it to loosen a little of the surface soil to receive the timothy seed, but soon found it useless to attempt to effect it in that way, and I finally determined to sow the seed upon the naked, uncultivated earth. It had been previously well cleansed of all the chips, leaves and brush, &c., well burnt off. It was in the month of August; a rain pretty soon succeeded the sowing, the timothy vegetated, took root and the succeeding summer was well set, but did not grow sufficiently large to be mowed. The next summer it yielded me at least  $1\frac{1}{2}$  tons to the acre, has been in timothy ever since and mowed every year, except when the field was in pasture, and at this moment presents a heavy timothy sod.

Now, Sir, I venture the assertion that there is not a square foot of soil, in Albemarle county, let it be argillaceous, calcareous or silicious, so hard that the finest root of timothy, or any other vegetable root, will not penetrate it when made moist (wet) by the genial rays of heaven. And I repeat again, that deep or subsoil ploughing is only beneficial when you bring up a virgin soil, which is richer and will enrich the worn out surface soil by being well incorporated with it; that makes your land more productive; it is not the deep ploughing for the roots to flourish in that improves the crop.

I have at this time on one of my farms as pretty a stand of timothy, producing two tons to the acre, which was sown on the hard earth in the month of August, 1852, in a field then in corn, which had not been ploughed from June. I have repeatedly seen timothy grow off luxuriously in the dust of the wagon ruts of the public highway; ground cannot be too hard for timothy to vegetate and grow, if it is only clear of all other vegetation.

Trusting that if this lengthy communication should not impart to you any new information upon the subject of farming, in which we all have a common interest, that you will not consider it officious, I am respectfully yours,

AN EX-FARMER.

#### WEIGHTS AND MEASURES

*Of Various Farm Products and other Things in Various Countries.*

In England and America grain is generally rated by the bushel, though it is not the same measure; for here we use the Winchester bushel, which contains 2,150.42 cubic inches;

there, since 1826, the legal measure is called the imperial bushel, which contains 2,218 cubic inches; so that 32 of their bushels are about equal to 33 of ours.

The following are the commercial weights of a bushel of different articles, viz: wheat, beans, potatoes and clover seed, 60 pounds; corn, rye flax seed and onions, 56 pounds; corn, on the cob, weighs 70 pounds; buckwheat, 52; barley, 48; hemp seed, 44; timothy seed, 45; castor beans, 46; oats, 35; bran, 20; blue grass seed, 14; salt, 50, according to one account, but Onondaga salt is 56; (the real weight of coarse salt is 85 pounds to the bushel); dried apples, 24; dried peaches, 33, according to a table lately published in numerous papers, but according to our experience, both are wrong. We have seen thousands of bushels sold at 22 pounds to the bushel, which will measure about three pecks.

*Heaping Measures.*—Potatoes, turnips and esculent roots, apples and other fruits, meal and bran, and in some States oats, are sold by heaping measure, which contains 2,815 cubic inches. The size of a Winchester bushel measure, is a circular ring with straight sides 8 inches high and  $18\frac{1}{2}$  in diameter. A box 12 inches square, with sides  $7\frac{3}{4}$  inches high, will hold half a bushel.

*Comparative Grain Measures.*—Besides the difference between the Winchester and imperial and heaped bushels, before stated, there are a dozen or more local bushels. For instance, at Abington, Eng., 9 gallons; at Penrith, 16; at Carlisle, 24; at Chester, 32, *et cetera*. In France, the *setier* is as 4.427 to 1.000 compared with the imperial bushel; that is 4.427 bushels. In Holland, the *mulde* is as 3.157. In Prussia, the *scheffel*, 1.479. In Poland, the *korse*, 1.451. In Spain, the *fanega* 1.599; that is, 99 thousandths over a bushel and a half.

*Barrel Measures.*—Rice, 600 pounds; flour, 196 pounds; powder, 25 pounds; cider and other liquids, 30 gallons; corn, 5 bushels, shelled. By this latter measure crops are estimated, and corn bought and sold throughout most of the Southern and Western States. At New Orleans, a barrel of corn is a flour barrel full of ears. In some parts of the West, it is common to count a hundred ears for a bushel.

*Ton Weight and Ton Measure.*—A ton of hay or any coarse, bulky article usually sold by that measure, is twenty gross hundred; that is, 2,240 pounds; though in many places that ridiculous old fashion is being done away, and 2,000 pounds only counted to a ton.

A ton of timber, if round, consists of 40 cubic feet; if square, 54 feet. A ton of wine is 252 gallons.

A *Quarter of Corn*, is the fourth of a ton, or eight imperial bushels. This is an English measure, not in use in this country, though very necessary to be known so as to understand agricultural reports. So of several of the following weights and measures:

A *Last*, of soap, ashes, herring, &c., 12 barrels; of corn, 10 quarters; of gunpowder, 24 barrels; of flax or feathers, 1,700; of wool 12 sacks.

A *Sack of Wool* is 22 stone; that is, 14 pounds to the stone, 308 pounds.

A *Boll of Wool* is the same weight.

A *Pack of Wool* is 17 stone 2 pounds: 240 pounds, a pack load for a horse.

A *Tod of Wool* is 2 stone; that is 28 pounds, 6½ tods, 1 wey, and 2 weys a sack.

A *Clove of Wool* is 7 pounds, or half stone. Recollect, a stone is 14 pounds, when talking of wool feathers, &c.; but when applied to beef, fish and other meats, it is only 8 pounds.

A *Truss of Hay*, new, 60 pounds, old, 56; of straw, 40 pounds. A load, 36 trusses.

A *Pirkin of Butter* is 56 pounds; a tub, 84.

A *Scotch Pint* contains 105 cubic inches, and is equal to 4 English pints.

A *Parlot of Wheat* is 21½ Scotch pints.

*Troy Weight and Avoirdupois Weight.*—One hundred and forty-four pounds avoirdupois, are equal to 175 pounds Troy—175 ounces Troy are equal to 192 ounces avoirdupois. All precious metals are bought and sold by Troy weight.

The *Kilo-gramme*, of France, is 1,000 grammes, and equal to 2 pounds, 2 ounces, 4 grains, avoirdupois.

A *Chaldron of Coal*, is 58½ cubic feet, generally estimated 36 bushels. A bushel of anthracite coal weighs 80 pounds, which makes the weight of a chaldron, 2,880.

*Weights of a Cubic Foot.*—Of sand or loose earth, 95 pounds; compact soil, 124; strong or clayey soil, 127; pure clay, 135; mixture of stones and clay, 160; masonry of stone, 205; brick 125; cast iron, 450; steel, 489; copper, 486; lead, 709; silver, 654; gold, 1,203; platina, 1,218; glass, 180; water, 62; tallow, 59; cork, 15; oak timber, 73; mahogany, 66; air, 0.0753. In the above fractions are discarded.

A *Bale in Cotton*, in Egypt, is 90 pounds; in America, a commercial bale is 400 pounds, but is put up in different States, varying from 280 to 720 pounds. Sea-Island Cotton is put up in sacks of 300 pounds.

A *Bale of Hay*, is 300 pounds.

A *Cord of Wood*, is 128 solid feet, usually put up 8 feet long, 4 feet wide, and 4 high. In France, a cord of wood is 576 feet.

A *Stack of Wood*, is 108 solid feet; 12 feet long, 3 high, and 3 wide. A *skid* of wood is a round bundle of small sticks, 4 feet long, girting for a one-notch, 16 inches, two-notch, 23 inches; three-notch, 28 inches; four-notch, 33 inches; five-notch, 38 inches. A *billet* of wood is similar to a skid, being 3 feet long, 7, 10, and 14 inches round. They are sold by the score or hundred. A score is 20 in number.

*Faggots* are bundles of brush 3 feet long and 2 feet round. A load of faggots is 50 such bundles. A *quintal* of wood is 100 pounds. All fuel should be sold by the pound.

A *Perch of Stone* is 25 cubic feet, piled, or 22 in the wall.

*Lime and Sand* to a perch of stone. Three pecks of lime, and two-thirds of a one-horse cart load of sand.

*Weight of Lime.*—A bushel of limestone weighs 142 pounds; after it is burned, if weighed directly from the kiln, 75 pounds; showing that 67 pounds of carbonic acid and water have been driven off by fire. This bushel of lime will absorb 20 pounds of water, gradually applied during several days, and will then be in a state of dry powder, weighing 93 pounds; showing that 18 pounds of water have been converted into a solid, dry substance.

*To Measure a Ton of Hay.*—One hundred cubic feet of hay in a solid mow or stack, will weigh a ton.

*To Measure Cattle to Compute Weight.*—Ascertain the girth back of the shoulders, and the length along the back, from the square of the buttock, to a point even with the point of the shoulder blade; say the girth is 6 feet 4 inches, and the length, 5 feet 3 inches, which, multiplied together gives 31 feet. Multiply this by 23, the number of pounds allowed to the foot, between 5 and 7 feet girth, and the result is 713 pounds, for the number of pounds of beef in the four quarters. Girths from 7 to 9 feet allow 31 pounds to the foot. Cattle must be fat and square built to hold out weight.

*To Measure Grain in Bins*, multiply the length and width together, and that product by the height in cubic inches, and divide by 2.150 and you have the number of bushels.

*To Measure Corn in the Ear*, find the cubic inches as above, and divide by 2.815, the cubic inches in a heaped bushel, and take

two-thirds of the quotient for the number of bushels of shelled corn. This is upon the rule of giving three heaping half bushels of ears to make a bushel of grain. Some falls short and some overruns this measure.

**Board Measure.**—Boards are sold by face measure. Multiply the width in inches of any number of pieces of equal length, by the inches of the length. Divide by 144, and the quotient is the number of feet, for any thickness under an inch. Every fourth inch increase of thickness, adds a fourth to the number of feet in the face measure.

**Land Measure.**—Every farmer should have a rod measure, a light, stiff pole, just 16½ feet long, for measuring land. By a little practice he can learn to step just a rod at five steps, which will answer very well for ordinary farm work. Ascertain the number of rods in width and length of any lot you wish to measure, and multiply one into the other, and divide by 160, and you have the number of acres, as 160 square yards make a square acre. If you wish to lay off one acre square, measure 13 rods upon each side. This lacks one rod of being full measure.

**Government Land Measure.**—A township is 6 miles square, and contains 36 sections, 23,040 acres. A section, one mile square, 640 acres. A quarter section, half a mile square, 160 acres. As this is 160 rods square, a strip one rod wide or every rod in width is an acre. A half quarter section, is half mile long, north and south, almost universally, and a fourth of a mile wide, 80 acres. A quarter-quarter section, is one-fourth of a mile square, 40 acres, and is the smallest-sized tract, except fractions, ever sold by the government. The price is \$1 25 an acre.

**Measure of a Mile.**—While engaged in the compilation of this valuable article, we received the following table from a friend in Maine, who, in remarking upon the indisposition of some persons to take an agricultural paper, "because," they say, "it pertains to the system of book farming," says some object to take *The Plow* because "they can't afford it." We are sorry for their poverty, but more so for their ignorance, and stupid determination to remain in it. This single article, which is less than the fiftieth part of what we give them for fifty cents, would cost any one of them fifty times the price of *The Plow*, in labor, to glean this information from fifty dollars' worth of books. Our measure of distance is by the standard English mile, which is 5,280 feet in length, or 1,760 yards, or 320 rods.

An English geographical mile, is equal to 2,025 yards.

Ancient Scottish mile,	1 mile	224 yds.	English.
Ancient Irish mile,	1 "	480 "	"
German short mile,	3 "	1579 "	"
German long mile,	5 "	1326 "	"
Hanoverian mile,	6 "	990 "	"
Tuscan mile,	1 "	48 "	"
Russian mile,	4 "	1197 "	"
Danish mile,	4 "	1204 "	"
Dantzic mile,	4 "	1435 "	"
Hungarian mile,	5 "	313 "	"
Swiss mile,	5 "	353 "	"
Swedish mile,	6 "	1140 "	"
Arabian mile,	1 "	380 "	"
Modern Roman mile 132 yards less than English.			

LENGTH OF LEAGUES.

French posting league,	2 "	742 "	"
French league,	3 "		"
English league,	3 "		"
Spanish judicial league,	2 "	1115 "	"
Portugal league,	3 "	1480 "	"
Flanders league,	3 "	1584 "	"
Spanish common league,	5 "	376 "	"

LENGTH OF OTHER MEASURES.

Persian Parasang,	3 "	806 "	"
Russian Werst,	6 "	593 "	"
Turkish Bein,	1 "	66 "	"
A German geographical mile is equal to 4 English miles, or 8100 yards.			

SCRIPTURE MEASURES.

"A Sabbath Day's Journey" is 1,155 yards—about two-thirds of a mile. A *day's journey* is 33½ miles. A *reed* is 10 feet, 11½ inches. A *palm* is 3 inches. A *fathom* is 6 feet. A *Greek foot* is 12½ inches. A *Hebrew foot* is 1.212 English foot. A *cubit* is 2 feet. A *great cubit* is 11 feet. An *Egyptian cubit* is 21.888 inches. A *span* is 10.944 inches.

As the superficies of all our States and Counties are expressed in square miles, it should be borne in mind that the contents of a mile is 640 acres.

**Number of Square Yards in an Acre.**—English, 4,840; Scotch, 6,150; Irish, 7,840; Hamburg, 11,545; Amsterdam, 9,722; Dantzic, 6,650; France, (hectare,) 11,960; Prussia, (morgen,) 3,053.

**Manure Measure.**—This is generally estimated by the load, which is about as definite as the phrase about as big as a piece of chalk. It ought to be measured by the cubic yard or cord. A *cubic yard* is 27 cubic feet, each of which contains 1,728 cubic inches. A *cubic cord* is 128 cubic feet. As the most of farmers have an idea in their minds of the size of a pile of wood containing a cord, they would readily compare that with the quantity of manure, if stated in cords. Every cart or wagon box, before it leaves the maker's shop, ought to have the cubic feet and inches it will contain indelibly marked upon it. This would

enable the owner who has read *The Plow*, to calculate the amount of his load of grain, roots, earth, stone or manure.

*Weight of Manure.*—A solid foot of half rotten stable manure, will weigh, upon an average, 56 pounds. If it is coarse or dry, it will average 48 pounds to the foot. A load of manure, or 36 cubic feet, of first quality, will weigh 2,016 pounds; of second quality, 1,728 pounds. *Weight to the acre.* Eight loads of first kind, weighing 16,128 pounds, will give 108 pounds to each square rod, and less than two and a half pounds to each square foot. Five loads will give 63 pounds to the rod. An acre containing 43,560 square feet, the calculation of pounds per foot, of any quantity per acre is easily made.

*The Measure of Mind*, may be considerably expanded in every youth who will carefully study these pages, which we have prepared with a measure of labor especially for the benefit of all who measure the capacity of our intellect to give useful information by our monthly chronicle of matters calculated, or at least intended, to elevate the minds of our readers immeasurably above those who are still groping in the darkness of wilful ignorance, because of their misjudged economy in not patronising agricultural papers and schools.

[*The Plow.*

#### CULTURE OF LUCERNE.

We have been informed by Mr. Lewis Mabry of this city, that he has cultivated lucerne regularly for more than forty years with the most satisfactory success. It has invariably supplied him with the greatest abundance of green food of the richest quality for soiling cows, and it makes a hay in all respects equal to clover. There are plants now in Mr. Mabry's yard which have been there for forty years. He has usually had about two acres of ground in lucerne, and his mode of cultivation is as follows:

The land should be well and deeply prepared, as the plants send down their tap roots to a great depth. The soil should be dry and rich. The time for sowing the seed is in September, and they should be sown broadcast. They soon vegetate, and the plants continue to grow vigorously during the fall, and acquire sufficient strength to withstand the severity of the coldest winters. In the spring, they start off to grow in advance of all other vegetation, and take entire possession of the ground. If the seed is sowed in the spring, the grass will overtop and smother the lucerne, unless it is drilled, in which case it requires frequent and careful workings. It should not be sowed

with any other crop. When sowed in the fall, it will furnish the cuttings the next season. The second season it will be fully established, and yields as many as four cuttings, which it will continue to do for four years. By the expiration of that period, it will begin to die out in patches, and another sowing should be made. The plants should not be suffered to bear seed any further than is necessary for new growings.

On the whole, Mr. Mabry considers lucerne as invaluable, particularly on small farms, from the great quantity of food it supplies; thus enabling the possessor of only a few acres to keep a number of cows, which, in their turn, furnish abundant means of enriching the land, besides affording the owner the luxury and the profits to be derived from a good dairy. We would especially recommend to our farmers in the neighborhood of the city to make the experiment. With milk at sixpence a quart, and butter at 50 cents—never less than 37½ cents—a pound, the advantages to be derived from a dairy appear to us to be very decided.

Mr. Mabry informs us that the *Alfalfa* clover, about which we made some inquiry a few weeks ago, is nothing else than lucerne.

[*Southern Farmer.*

For the Southern Planter.

#### BLACK HAWK HORSES.

*To the Editor of the Southern Planter:*

In your paper for June last I see you have, at the request of Hon. W. C. Rives, published some remarks on Black Hawk horses, comprised in articles taken from the "Boston Cultivator" and the New York "Spirit of the Times." The "Notes" by the editor of the last named paper embrace certain points, which, it seems to me, ought not to be passed over without notice. These points are, principally, Whether the progeny of Vermont Black Hawk have or have not been made "undersized" by breeding in-and-in? Whether they are or are not fifteen to fifteen and a half hands high; and are or are not as tall as most of the distinguished trotters and racers at long distances?

The following remarks are respectfully submitted on the affirmative of these questions.

1. Breeding in-and-in. The actual facts on this point, I am confident, were comprised in the article copied from the "Cultivator,"—showing that the few animals of this stock which could be said to have been bred in-and-in, were too young to be judged of as to size, the oldest at that time not being five years

old, and most of them not one year old. (It is not intended to enter here on a discussion of the consequences of that course of breeding.)

2. Height of the Black Hawk stock. It is of little avail to place mere opinions in contradiction to each other. Such, however, is the confidence in the correctness of the standard above named, among those best acquainted with the stock, that they would have no objection to settling the matter, if necessary, by having a sufficient number of animals measured by a suitable person, to obtain a fair average.

3. Height of trotters. Skinner, in his edition of "Youatt on the Horse," gives a list of twenty-nine noted trotters. Of these, five only were sixteen hands; sixteen were fifteen and a half, and under; six of the latter not rising above fifteen hands, and one of them being only fourteen and a half. The Nonpareil—Lady Suffolk—lately deceased, is put down at fifteen and a half. It may be added that Rattler, taken to England, was only fourteen and a half. [Turf Reg., vol. 2, p. 139.] Beppo and others might be named, as of no greater height. The English Norfolk trotters are described as about fifteen hands: This was the height of Bellfounder, imported to the United States, and of Norfolk Phenomenon.

4. Height of racers. The remarks in the article copied from the "Cultivator" applied to horses most distinguished for running long distances; no special reference was made to horses "in this country." Means are not at hand for ascertaining the height of all which have been thus signaled. But in the second volume of the "Turf Register," the height of one hundred and forty-seven racers is given, in a list copied from the "Annals of Sporting." The list is introduced by a note from the editor (at that time) of the "American Farmer," the late John S. Skinner, who was also editor of the "Turf Register," in which note the opposition to horses of fifteen hands is called a vulgar objection, adding that "a large proportion of the most distinguished race-horses have not exceeded fifteen and a half hands, and many have not risen above fifteen hands." The catalogue is said to comprise horses "renowned on the British Turf." They belonged to the period when long races and heavy weights were in vogue; the present fashion for short races being then almost unknown. Of the 147, one only reached sixteen hands, and only eleven exceeded fifteen, while no less than eighty-three were fourteen and between that

and fifteen, and twenty-eight between thirteen and fourteen hands! Among those of fifteen hands are the Darley Arabian, Godolphin Arabian, his celebrated son Cade, the sire of Wild Air, and others of note. The Darley Arabian was the sire of Flying Childers, the fleetest horse of which we have any history. Lawrence says he was fifteen hands "or upwards." After giving his pedigree he justly remarks, "Childers, we see, was bred considerably in-and-in. Not to dwell on this, let him pass, if you please, as an example of what has been done by in-and-in breeding, and about fifteen hands in height! He ran, according to the record, three miles, six furlongs, and ninety-three yards, in six minutes and forty seconds—being eighty-two feet in a second, or "nearly at the rate of a mile in a minute." He also ran four miles, one furlong, and 138 yards, in seven minutes and thirty seconds.\* Marske, the sire of Eclipse, was, as appears from the list alluded to, only fourteen hands half an inch in height; and Old Cartouch was only fourteen hands yet, it is said, "no horse in the kingdom was able to run with him at any weights from eight to twelve stone." The famous Hambletonian was only thirteen hands three and a half inches in height.

It is perfectly natural that these horses should have been of low stature. The Arabian, from which the English thoroughbred is in part derived, seldom reaches fifteen hands. Layard, in his late travels in the Desert, states that the purest of that race range from fourteen to fourteen and a half hands, and that he never saw but one mare that exceeded fifteen hands.

Space will not be taken up with further reference to authorities, but it is worthy of mention, that Mr. Rives, (son of W. C. R.,) in the first of the able articles on "The Horse" which he has written for the "Planter," observes—"Some blood horses get up to sixteen hands, though in that case they are prone to be too slim-bodied and leggy, or, as the English say, too 'slender timber.'" He refers, of course, to what he saw in England, but the principle is equally applicable here.

Peytona is spoken of as nearly seventeen hands high; but could she run long races, and continue to run them, with the shorter-legged Fashion, only fifteen and a half hands? Was she not, in fact, broken down in attempting it?

In regard to coach horses, they have always been regarded in England as a distinct

\* Lawrence's work on the Horse, p. 267.

class from the roadster, light carriage horse, and fast trotter: and why should they not be so regarded here? One breed of horses cannot answer every purpose, any more than one breed of sheep or one breed of dogs can supersede the use of other breeds of their respective species. Each is fitted for a peculiar object. The *true* Morgan horses, including Black Hawks, are calculated for light carriages, not heavy coaches. For this they are bred, and they sell readily at such prices that there is no occasion to change the system, even for the prices named for coach horses. The latter, of course, must be produced: they have their place, and it is gratifying that the breeders of them may be handsomely remunerated; but why should it be objected that a Black Hawk or Morgan is not a coach horse, tall enough, in the language used in the article from the "Spirit" to "look over a two-storied house," any more than that a game cock is not a Shanghai?

It is an error to suppose that these horses are small from degeneracy. The race was never large. The first Morgan, got by True Briton, only weighed about 950 pounds, and was less than fifteen hands high. His immediate progeny were not larger. There have been, latterly, horses with only a small degree of that blood, of much greater size. The heavy horses used in express wagons, to which allusion is made in the article from the "Spirit," are in some instances not without a remote strain of the Morgan blood. Still, those animals which have retained in the highest degree the special characteristics of the original stock—activity, hardiness and durability,—have not shown much deviation in respect to size.

TRUTH.

#### ACCOMACK COUNTY.

ACCOMACK, June 26th, 1855.

To the Editor of the *S. Planter*:

I believe the opinion prevails very generally amongst persons who are unacquainted with the Eastern Shore, that the people of Accomack and Northampton are very poor and the land unproductive, and that many of the inhabitants (as was once said by Patrick Henry in relation to the people of the tide-water region of Virginia,) are compelled "to rake their daily bread from the oyster banks." A slight examination of the "county statistics," published in the "Compendium of the Census of 1850," will clearly show that this opinion is entirely erroneous; and instead of being poor, the counties of Accomack and North-

ampton, in proportion to *population* and *extent of territory*, are amongst the most wealthy in the State.

In many of the counties of Virginia, on the banks of the rivers and in small valleys amongst the mountains, there are lands more productive than any on the Eastern Shore but taking the whole number of "acres of improved land," it will be found that very few, if any, counties in the State are as productive as Accomack and Northampton.

I have lately made a comparison of the productions of Accomack in the articles of corn, wheat, oats, rye and potatoes, with the production of the same articles in the large and wealthy counties of Albemarle, Augusta, Bedford, Frederick, Halifax, Jefferson, Loudon, Rockingham and Shenandoah, in proportion to population and acres of improved land, and I confess that the result surprised me, although I was previously aware that Accomack deserved to stand high on the list of productive and wealthy counties.

Accomack produces more corn than any county in the State, except Albemarle; and of the articles of produce above enumerated, taken together, Accomack produces, in bushels, *in proportion to population*, 18 per cent. more than Loudoun, 30 per cent. more than Rockingham, 50 per cent. more than Jefferson, and *more than fifty per cent.* more than any other of those counties. In proportion to the whole number of "acres of improved land," Accomack produces, in bushels, of the enumerated articles, 20 per cent. more than Jefferson, 70 per cent. more than Loudoun and Augusta, and more than 100 per cent. more than any other of those counties.

I have not included "tobacco" and "live stock driven to market" in the estimates, because these articles are not produced in all of the above named counties; and, moreover, the county statistics do not furnish any data from which to ascertain the quantity or value of the "live stock driven to market." In the "value of animals slaughtered," Accomack exceeds every one of those counties in proportion to her population, and she nearly doubles some of them. In the number of "neat cattle" owned in the several counties named, Accomack, in proportion to her population, exceeds the whole of them, except Loudoun and Rockingham; and in "swine" she exceeds the whole of them in proportion to population, except Halifax and Rockingham.

If "tobacco," and "cattle driven to market," be added to the estimate, I think it will be nevertheless found that very few counties in the State are equal to Accomack in the



market value of her productions per head or per acre. In estimating the value of *all* the productions of Accomack, as much as one hundred and fifty thousand dollars per annum may be added for the product of the "oyster banks."

If the large and wealthy county of Southampton be taken into the comparison with Accomack, and the articles of peas and beans (which furnish striking peculiarities in the agriculture of that county,) be added to the articles of produce above enumerated, it will be found that Accomack exceeds her in bushels, according to population, 11 per cent., and in proportion to "acres of improved land," 100 per cent. In "neat cattle," Accomack and Southampton are about equal according to population, and in "Swine" Southampton doubles Accomack, and in the "value of animals slaughtered," Southampton is 62 per cent. ahead of Accomack according to population, and 15 per cent. behind her in proportion to "acres of improved land." If the product of the "oyster banks" be added, even Southampton will be found largely behind Accomack.

I have endeavored to ascertain with considerable care the whole amount of the products of Accomack exported to market in one year, including oysters, and I believe, at present prices, they amount to at least seven hundred thousand dollars, with a population of 17,890, and 112,942 acres of improved land.

On a view of the whole subject, I think very few, if any, counties of Virginia will be found, which can justly dispute the right of Accomack to stand at the head of the list of counties *agriculturally* as well as *alphabetically*, except that her sister Northampton may justly claim a right to stand by her side as an equal.

If you think the above worthy of a place in the "Planter," by publishing it you will oblige  
A SUBSCRIBER.

For the Southern Planter.

#### THE DRUMGOOLE MULBERRY.

Mr. RUFFIN: It has long been upon my mind to give you an account of one of our indigenous fruits, which ought to be better known as an object worthy the attention of rural economists.

It is a mulberry of rare species, first discovered in the county of Greenville. I met with it in the yard of the late venerable Rev. G. Drumgoole of Brunswick, father of

the late Hon. George Drumgoole, who gave me the following account of it:

He had never known but one tree of this kind, from which his was propagated by engraftment upon the stock of a common native mulberry. The original tree was found in Greenville. It is the most prolific fruit tree of any sort or kind I ever saw; my attention being attracted by the immense crop of fruit upon it, I learned from Mr. D. that it never failed to produce an equal quantity every year; that for many years before I saw it, (30 years ago,) he had been in the habit of making a pig pen under one half of its shade, leaving the other out for the benefit of the domestic fowls. The tree covered a circle of about 25 feet diameter, and kept two shoats in good eating order, and afforded an ample sufficiency for all the fowls while the fruit was falling—a space of about six weeks—from the valuable peculiarity of producing its fruit in succession.

Every particular as to the value of this mulberry I can vouch for, having obtained cuttings from Mr. Drumgoole. I have had bearing trees of the description above for many years past, and would gladly furnish cuttings at the proper season to any person who would be desirous of making such an acquisition to their homesteads or their plantation permanent turn rows as an important item of mast for all plantation stock.

BREMO,

July 6, 1855.

JOHN H. COCKE.

For the Southern Planter.

#### THE BARREN HEIFER.

Mr. Editor:—I have a cow 7 years old next August, which I call my Barren Heifer. She has never had a calf, and has *never* been with calf, that I have any reason to believe. She has run with a good bull or bulls all the time of her past life, winter and summer, except this year; and has been regularly in heat, periodically. She has been daily to the pail as a milch cow for the past 19 months, giving last summer two gallons of good milk per day, liquid measure, (not *eye* measure;) and one gallon per day, liquid measure, during last winter. She is now giving upon lean pasture two gallons again per day. I am trying to increase her quantity all I can by giving attention to her being properly milked; that being the only means which I can use without incurring more expense than I am willing to.—She has the very *finest* development for flowing and continuing to flow—according to my understanding of Guenon's description of the escutcheon. It has been and may be

again asked. "Why did you commence milking her?" I answer: She was a heifer of the finest promise, both in size and otherwise, which I ever raised, and a calf of my favorite cow, and I was more than anxious to have her to the pail. Consequently I bore with her barrenness (hoping she would have a calf,) until she had passed the age of five years, from August to November, when, being *very* fat, I determined to sell her for beef; but, feeling so partial to her, and discovering there was fluid in her udder (which I had seen nearly all the preceding summer,) I determined to have her milked, and see if I could thereby cause a flow of milk; hoping in the accomplishment of which, she would breed. To accomplish which, I asked Mr. M. Walker Estes, (who then lived with me, and now lives with Mr. Wm. P. Farish) to have her milked. He did so, and reported that, "they got a right smart chance of water." In a few days, the report was made of getting two drops of *milk*. Being so delighted at the news of getting *milk* from her, though in that small quantity, I asked him to continue to have her milked, until I asked him to stop. She has continued to increase from two drops to two gallons as I have described. I shall continue to have her milked, and if I am successful in causing the quantity given to increase to three or four gallons per day, I may in future inform you.

Whilst I am writing, please to allow me to say, that my water telegraph, published in your last July Number, is still giving us its usual accommodations with *very fair* prospects of future continuation.

Yours, very respectfully,

ED. J. THOMPSON.

ALBEMARLE CO., VA.,  
June 18, 1855.

#### THE HYDRANGEA.

Although this must be admitted to be one of the most showy plants we have, it has certainly been very much neglected of late years. It is, however, still prized by a few, who find it particularly useful for greenhouse and conservatory decoration, displaying its enormous heads of pink and blue flowers in abundance, and remaining a long time in perfection. The following method of treatment being pursued, will enable all who practice it to have *large heads* of blossom from plants even in small pots. If cuttings are taken off in August, and potted in a mixture of leaf-mold and sand, in a well-drained pot, and be placed in an old cucumber or melon frame, they will root freely, and should be potted

into four-inch pots as soon as they have become sufficiently rooted. The plants should be kept to one leader, the top bud of which should not be pinched out, but all lateral or side shoots be removed as soon as they appear.—When sufficiently established in their pots, move them to the greenhouse, where they should be wintered. Early in spring shift them into five or six-inch pots, as may best suit your convenience, and as soon as they have commenced growth liberally supply them with water, using the syringe freely at all times. Perhaps the most convenient place for them at this season is a vinery, which I find suits them well, and brings them on gently until the blossoms make their appearance. Water at this stage must on no account be neglected. If large specimen plants are required, they should be grown another season, when they will form a fine bush and produce many heads of blossoms, although inferior in size to those on plants kept to one leader. I have grown the same plants for years; in this way they have made huge specimens, and amply repaid me for my trouble; but if small plants with large heads are preferred, they should be grown from cuttings every season. I have also struck cuttings in February, and grown them on until the following season, using a slight bottom-heat, and disbudding the useless eyes; such plants have produced enormous heads, superior in size to those struck in August, but then the plants are longer in hand, which, in many cases, is a consideration. The soil best suited for their culture is equal portions of cow-dung, leaf-mold, fibrous loam, peat, and sand, well mixed in a rough state. The pots should be thoroughly drained, and, during the blooming season, the plants will be benefited by being placed in a pan of water. Manure-water may be used freely while the plants are in bloom. In order to change them from pink to blues of different shades, put them in Norwood loam, or common red sand; potting in peat and watering with alum-water will also produce the same effect; but the two former kinds of material are the best. If planted on well-drained ground, and slightly protected in winter, the Hydrangea will form an ornament in the flower garden such as few can equal; but it must be liberally supplied with water during the blooming season.—*Floricultural Cabinet*.

#### THE WAGON.

It is evident that the larger the wheels of a vehicle are so much lighter is the draft, until the centre of their circumference becomes equal in height to the horse's breast. Besides,

large wheels produce less friction, because their velocity is less than small wheels, and the latter sink deeper in a soft road, thereby increasing the difficulty of transportation. The advantage of larger wheels than those in common use will farther appear when we take into consideration that the fulcrum is at the bottom. The average height of the fore-wheels is not commonly over forty inches, which would only give the horse a lever power of twenty inches over the weight; moreover the weight is at too great a distance below the horses' breast. If we should increase the height of the wheel to sixty inches, it would give the team a lever power of thirty inches; still leaving the weight sufficiently low, making a difference in favor of the horses of fifty per cent.

We can see no good reason why the hind-wheels should be larger than those before. It seems to us that they should be equal, the opinion of some wagoners to the contrary notwithstanding. Suppose, for instance, the fore-wheels should be four, and the hind wheels six. The inclination forward of the line of traction would tend to press, the load into the earth, and, consequently, increase the difficulty of drawing. If there be any advantage in having the wheels of different heights, why is it that the intelligent constructors of steam cars have not availed themselves of it? The advantage of larger wheels is somewhat lessened, it is true, by the increased difficulty of turning in a narrow compass; but wheels being of equal height does not increase this difficulty.

As the fulcrum of the wheel is at the bottom, it follows that its motion increases as the distance from the bottom increases, and if a horizontal line (imaginary) be drawn, passing through the centre of motion, the velocity of that part above the line will be five times greater than the part below.

A wagon with two inch tire will sink in the ground *four* times deeper than a four inch tire, all things else being equal: the latter having double the space to sustain the load and only half the weight on any given space. I merely mention the four inch tire for the sake of illustration, three or three and a half being amply sufficient. Hoping some intelligent mechanic may possibly improve on these hints, I am,  
gentlemen,  
A BLACKSMITH.

[*Mississippi Conservative.*]

#### ENEMIES OF PLANT LICE.

Several insects are great destroyers of plant lice. The most important of these are the larva of the *Syrphus*, and the lady-bird—*Coccinella*. On the 10th of June we noticed

great numbers of aphides or plant lice on the leaves of a peach tree. On examination, we discovered on the leaves clusters of black insects, so small that their form could not be clearly distinguished by the naked eye, but by a magnifying glass they were proved to be the larva of the lady-bird. A week later the tree was examined, and the young lady-birds were found to have grown to nearly a quarter of an inch in length, and had nearly exterminated the aphides on one side of the tree. They hunt the lice continually, catching them in their forceps and sucking out their vitals. At the same time that the larva of the lady-bird were found, a few specimens of the larva of the syrphus were discovered. This insect in the larva state is shaped like a maggot. Its head is armed with a dart, with which it pierces plant lice, preparatory to devouring their juices. Dr. Harris states that it is totally blind; yet it finds no difficulty in catching the lice. We plucked a leaf with one of these larva on it. The insect became disturbed and appeared to be frightened. We placed it on another leaf, and by taking the aphides on the point of a pin and placing them near the syrphus, it would at once transfix them, suck their blood, and throw away the dry skins. The exhibition was interesting to several persons who had not previously known anything of the habits of these lice-destroyers.  
[*Mark Lane Express.*]

AN UNFORTUNATE ROOSTER.—There are objections to Shanghais, no doubt, but we had never thought of this. It is very curious but it is true. The way of it was this: Mr. S—— an old resident of Stillwater, on the upper Hudson, introduced among his family of hens a few Shanghais, including a rooster, of formidable dimensions, who had "run to legs" a good deal. His crow was peculiar, and easily distinguished from that of other cocks. One morning he had waited to hear a repetition of the usual summons, after being aroused by the "shrill clarion" once sounded, but he heard it not again. The other roosters were doing their best, but the pre-eminent chanticleer was still. Mr. S—— went out to see what had caused the silence. He found the rooster lying on his back, with both legs out of joint. After an examination, he set both legs; the cock walked off, and gave vent to his satisfaction in a lusty crow. In the very act he dropped as if he had been shot. He had crowed his legs out of joint again! He was kept three or four days, and then killed. "It was too much trouble," said Mr. S. "to set him up every time he crowed!"—*Knickerbocker Mag.*

For the Southern Planter.  
DISTEMPER IN CATTLE.

POWHATAN, July 5th, 1855.

DEAR SIR:—It was with no small degree of pleasure that I read in your April number the interesting essay of my friend Dr. Morton of Cumberland, on what is so generally understood by the term "distemper" in cattle.

He has done me the honor of stating therein the substance of a conversation between ourselves at our last agricultural exhibition, in consequence of which I am induced to present to you the amount of my observation and experience on the subject.

The history of the commencement and progress of this formidable disease in Virginia, as detailed by Dr. Morton, is just such as I have uniformly before learned from other sources. Whether this disease prevailed in North Carolina, whence came the drove of beeves supposed to have brought it here, I have not been informed; therefore do not, with confidence, entertain an opinion as to the question of their having left Carolina with the rudiments of the disease existent in their systems, or of its contraction, by change of climate or of grazing grounds, as they tarried on the journey. As no such disease had previously existed in our region of country, they could not have taken it by contagion.

Not having formed an opinion satisfactory to myself in relation to the causes of distemper, I shall not present any speculations on that part of the subject, but detail a few cases, with the circumstances attendant, as well as the treatment given to such as were subjects of my own observation. Having, many years since, had various opportunities of seeing cases of distemper among the cattle of my neighbors, I formed the opinion that it was, *in its commencement*, a local disease, and required, for its successful treatment, no other than local remedies.

Case 1st.—A farmer on James river, put his work oxen and milch cows into a pasture on the river, entirely secluded from communication with, and even from the sight of, other cows. A parcel of young cattle he turned on the commons of the neighborhood. So soon as his wheat field had been cleared of its crop, both lots of cattle were introduced, all, apparently, quite well. He congratulated himself on his young stock having escaped the distemper; as to his oxen and milch cows, he had experienced no apprehensions. At the expiration of eight or ten days, however, some of the latter, which had been so carefully secluded, became sick of distemper, and several of them actually died before any of

the young cattle from the commons were sick. A large portion of both lots were sick, and the owner, I think, reported that none recovered. On this farm there had not been for many years, if ever, previously, a case of distemper.

Case 2.—There have been, on my own farm, in the course of a considerable series of years, about twelve cases of distemper, notwithstanding that my cows, as well as all other stock, have been ever kept within my own enclosures, with the single exception that my working oxen have been occasionally sent abroad; no ox, however, has been sick until within the last three years, and nearly all the cases of distemper had previously occurred. Several cases similar to these, and within my own knowledge, could be stated. To what cause can these cases be imputed? Contagion is not conceivable.

In relation to the seat of the disease, I will merely say, that I consider it, *at first*, entirely confined to the head; that the disease depends on an obstruction to the free circulation of air through the delicate and porous bones between the horns and the nostrils. You may very reasonably inquire, if this be true, whence comes the indurated state of the contents of the manifold, the disorganized condition of this receptacle itself, and other indications of so fatal derangement of the digestive apparatus, the bladder, etc., so uniformly observed on examination after death by distemper? In my humble opinion, the explanation is, concisely, this: the formation of all the animal secretions depends on the influence of the nerves; all the nerves arise from the brain and spinal marrow; the spinal marrow itself from the brain; the brain may, therefore, be well said to be the source of all nervous power; hence, any cause seriously affecting the brain may be confidently expected to impair or destroy the healthy action of the nerves themselves throughout the system. That the brain is powerfully affected in distemper is obvious from several indications; but especially from the fact that utter madness is a very common attendant. This irritation of the brain depends, I conceive, on the confinement of air in the upper part of the head; it is thence extended to the nerves, either directly or through the spinal marrow, paralyzing their natural healthy action, so indispensable to the formation of the gastric liquor and other fluids of the system; hence, I conceive, arises the disorganized state of the manifold, (with dryness of its contents), the liver and adjacent organs.

Impressed with the importance of the subject, and convinced of the utter inefficacy of all the medicines and appliances of which I had heard, my attention was earnestly directed to it. Under the influence of the views just presented, I adopted the treatment which the following cases are intended to illustrate.

Case 3d.—A neighbor, at whose house I was, showed me three cows ill of distemper, and dated their sickness from the preceding day. On a careful examination of them their horns were found to be destitute of their natural heat. The conviction that they were hollow induced me to advise him to immediately bore them with a large gimlet. He rather declined my advice on the ground of its certain inutility, and, indeed, of the utter hopelessness of the efficacy of all efforts at cure, having, as he said, in another locality, twice lost all his stock with this disease. On the morning of the next day I was again there. His three sick cows of the preceding day were worse, and a fourth had become sick. I again advised the use of the gimlet, and urged him, if but for the gratification of my desire, to make the experiment. Wholly, I believe, for compliance with my request, he accordingly bored each horn of all four cows with a large gimlet, on the lower side of the horn, from one to two inches from the head. All the horns were hollow. On the following morning the cows were not worse; on the second morning they appeared rather better; on the third still better; on the fourth very decidedly so, and thereafter continued to regularly improve in condition, until entirely well. I was at the house of this neighbour for many days in succession, and watched the progress of these cases. Other cases subsequently occurred at the same place, which were similarly treated, and with the same pleasing results.

Case 4th.—A neighbor, who had not previously had distemper on his farm, lost, in the course of two weeks, fourteen of the finest animals in his herd, work oxen and milch cows chiefly. I informed him, at this period of his suffering, of the experience I had then so recently had. A case for experiment was quickly presented. A fine young steer was sick in the morning; in the afternoon he was down, and not thought likely to get up; just before night his horns were bored, and found completely hollow. A mixture of vinegar and water (in the proportion of one spoonful of vinegar to two of water,) was then injected from a small syringe, into the horns, through the holes made by the gimlet, until it was freely discharged through the nostrils. On the morning of the next day the steer was up

and grazed sparingly. He improved daily, and continued to do so until quite well. I must not, however, omit to mention a fact observed in this case, and in no other before or since its occurrence; that is, that the horns of this animal, instead of being cold, as in all other cases in which they were hollow, were preternaturally warm. How to explain the deviation of this case in this respect, from others in all other respects similar, I am quite at fault. Many cases subsequently occurred on this farm in the same and in the next succeeding year; all were treated as above, and with similar results.

Case 5th.—A highly valued cow (my own) was found quite ill of distemper; from her great debility I inferred that she had probably been sick from one to two days before it was discovered. She had been a milch cow during the preceding winter and spring, and was in high order. At sunset, her horns, being quite cold, were bored, and found entirely hollow; they were injected, as in the preceding case. For several days she improved very slowly; but in eight or ten days, although feeble, was well, and in autumn following became quite fat. I have had other cases treated with equal success; indeed so long as the disease was accompanied with hollowness of the horns, I lost not a case.

The next case which I shall report, as exactly under this treatment, is calculated, in my judgment, to establish the correctness of my opinion, expressed in the former part of this communication; that is, that the distemper of cattle is, in its commencement, a local disease; just as local as a wound, which may, from the occurrence of inflammation, prove fatal to the patient.

The occurrence of the case last stated, excited my apprehensions as to the probability of the occurrence of others among my stock. With a view to the investigation of this disease, and to the commencement of its treatment at as early a period as its approach might be discernible, I had the horns of all my cattle examined daily, for several weeks. On the first examination (made on the day of the occurrence of the case last stated,) the horns of a cow, constituting—

Case 6th, were found quite cold, but the cow apparently in high health. I was pleased to have met with so good a subject for observation and experiment. For a week continuously I saw this cow daily, sometimes twice a day, and as frequently examined her horns. Her health and appearance were excellent, but her horns were uniformly as cold as a stone. I allowed this state of things to con-

tinue for exactly six days; how long it had existed before its discovery, I, of course, cannot determine. Unwilling to longer risk the safety of a fine animal, the preservation of whose life and value I considered in my hands, I determined to bore the horns, scarcely doubting that they were entirely hollow. To my surprise, however, I found the boring rather difficult. The bone in each horn was *dead, dry, and harder* than in a natural state. The passage of the gimlet through the bone excited not the slightest pain. On the morning of next day *the horns were exactly of their natural and healthy temperature*, and so continued to the day of her death, about seven years thereafter, when she was killed for beef; she was never sick, so far as is known, for a moment. I did not, even after death, cease to investigate this interesting case. I had the horns split open, and found the dead bone still there, but much reduced in size, and the shell of the horns proportionably thickened. That the other cases reported, would, if examined, have presented coldness of horns, I cannot say, but think it probable. Had this been so, the inference is strong, that timely boring would as certainly have acted as a preventive of general disease.

To this point I had said that all was well. For several years I heard of no failures of the treatment herein developed; but this obscure disease has, within a few years past, assumed a form somewhat different from that I had before met with.

In the summer of 1852 distemper became prevalent and very fatal in the county of Powhatan. Many cows died in my own neighborhood. Examination proved the bones of their horns to be quite sound. Confident that the disease was, *in its commencement*, confined to the head, I determined to make some experiment on the first appropriate subject. Having lost a pair of fine oxen and a cow, a very fine cow, without horns, was the next, constituting

Case 7th.—Her head was closely confined by ropes to a strong post in the cow house. Having accurately ascertained the point on the forehead, one and a half inches\* from the outer side of the head, and equi-distant from the upper edge of the orbit of the eye, and from the place at which the horn (if any)

\* In operating on a very large animal this would be exactly right, but for one of ordinary size I believe *an inch* from the outside of the head would be more exactly in the centre of the sinus; thus, the direction of an inch would be more generally applicable.

should have been, with a strong knife an incision two inches long was made down to the bone; the periosteum or membrane immediately covering the bone was carefully scraped away from a small surface, and a large gimlet inserted at a right angle with the forehead, into the bone, and worked on until it suddenly ceased to meet resistance. This was a certain evidence of its having penetrated a spacious cavity in the forehead, called the frontal sinus. A similar operation was done on the opposite side of the forehead, where a corresponding cavity exists. Anxious to omit nothing, but to make a full experiment of my views, I proceeded to perform similar operations on the *back* part of the ridge proceeding from the points where the horns (had there been any) should have been, making an incision and inserting the gimlet two inches from the centre thereof, on each side. The operation was concluded by a liberal injection into the several holes, of milk and water, which was promptly discharged through the nostrils. The cow, which was very ill before the operation, daily improved, but not rapidly, until well.

Case 8th.—In the summer of 1853 I had a powerful ox, without horns, attacked by distemper. He was found sick in the morning, and by afternoon was evidently worse. It was considered indispensable that he should be thrown, and secured by ropes. Two strong men held his head, whilst an operation precisely similar to that just described, was performed. Within forty-eight hours he was evidently better, and on the twelfth day after the treatment, was at plough.

I have now, Sir, given you the amount (small though it be) of my knowledge and experience on this subject. Having stated what I called the treatment of distemper, I wish you to distinctly understand that I have withheld nothing; that no medicines or appliances whatever, other than those specified, were in any case resorted to. I shall conclude this communication, already much more extended than I had anticipated, by the remark, that I have as great a degree of confidence in the efficacy of the plan of treatment herein presented as I could have in any such matter from the same amount of experience. I have not sought facts to establish a new theory, but the theory, if there be any, has been as it were forced on me by the observation of facts.

With most respectful and friendly regards,  
I am, &c.

AB. CRUMP, M. D.

P. S.—Any person who can cut the skin of a cow, and who will carefully attend to the

directions above given, may, with entire confidence undertake the operation described. There is no danger in it to the animal operated on; the cavities are large, and naturally contain, I believe, nothing but air. The bone over them is very thin. The wounds will be healed within forty-eight hours. It is now my opinion, not founded, however, on experiment, that the boring of the forehead is sufficient.

There is a fact which I should have mentioned, perhaps, in the body of this paper, but having omitted it, I will now state it. The nose of a healthy cow is always moist and cool; that of a distempered one dry and warm. So soon as the gimlet enters the horn, when hollow, or the frontal sinus, when that is operated on, a serous fluid is discharged from the nostrils, and the nose quickly becomes moist over its whole surface. In the commencement of the operation on the case last reported, the attention of the assistants was particularly called to the state of these parts, and again at the conclusion. A. C.

#### REMEDY AGAINST THE RAVAGES OF THE TURNIP FLY.

A correspondent of the *North British Agriculturist* gives the following as a remedy against this troublesome insect:

Let the seed be put into a glazed pan, or any open vessel, and put to it as much rapeoil as will, when stirred together with a stick, be sufficient to make the seed moist. Next add as much sulphur as will, when again stirred together, cause the seed to separate. When properly mixed, all the seeds will have a coat of sulphur adhering to it; and it will be found that the ingredients, in addition to keeping off the insects in question, will be a great stimulant to the growth of the crop. The seed thus managed may be sown or drilled with the same convenience as if it were clean. Should more seed be prepared than is found necessary to be sown at one time, it will keep well and not germinate for twelve months to come. This simple remedy I have never known to fail, and has only to be tried to be appreciated.

For the Southern Planter.

#### BILIOUS FEVER IN COWS.

July 3, 1853.

*Mr. Ruffin.*

DEAR SIR: For fear of misleading you as to the disease under which the cows treated by my directions, laboured, permit me to give you a statement of the symptoms before complying with your request as to the treatment.

Several years ago, sometime in July, I rode out to my father's, about two miles from this city, and found him, a brother, and several hands in a small grove and in their midst a cow, which he had lately purchased, evidently very sick. My father remarked, here is another cow attacked, and I fear she will not recover. She was evidently suffering from fever; indicated by an exceedingly quick pulse, hot and dry skin, hurried respiration, the head extended, ears drooping, eyes injected, thirst, loss of appetite and disinclination to motion; the discharges from the bowels frequent, thin and bilious; urine very high colored. I expressed the opinion that the cow was laboring under an attack of bilious fever, and as nothing had been given her, proposed that I should be permitted to treat her; my father consented, looking upon the case as nearly hopeless, having but every one similarly attacked. I directed several buckets of water from the spring to be thrown over her, so as to wet her whole surface completely. Gave her two drachms of calomel, by putting out of an apple a plug, inserting the calomel and reapplying the plug, having, previously, removed a sufficient portion of its apex, followed in eight hours by a mixture of half pint of castor oil and half pint of spirits of turpentine. The next day the fever was considerably abated; the same treatment was continued and I directed a strong decoction of oak bark mixed with bran, to be given her immediately after the operation of the medicine, provided the fever continued to decrease, and to be repeated three or four times during the next day. This cow recovered and died a year or two ago of old age. A few weeks afterwards my father purchased from a Mr. McKensie several cows. They were all what we termed mountain cows. Every one had the fever, and was treated on the same principles and all recovered; one however, died late the following fall from a subsequent diarrhoea, and partly, as my brother thinks, from neglect. At the time the first mentioned cow was attacked my father had a remarkably fine calf, (the mother of which died a few days after purchasing her;) she also was taken sick; the attack commencing, as did all these cases, with bilious diarrhoea, which was checked by the decoction of oak bark.

After the administration of calomel, caution is necessary to guard against salivation, as I am informed has occurred, by following it by oil, or what I preferred, oil and turpentine, so as to insure its purgative effects and by keeping the cow housed during a rain or damp spell of weather. Very respectfully,

A. F. P.



## THE SOUTHERN PLANTER.

RICHMOND, AUGUST, 1855.

### TERMS.

ONE DOLLAR and TWENTY-FIVE CENTS per annum, which may be discharged by the payment of ONE DOLLAR only, if paid in office or sent free of postage within six months from the date of subscription. Six copies for FIVE DOLLARS; thirteen copies for TEN DOLLARS, to be paid invariably in advance.

☞ No subscription received for a less time than one year.

☞ Subscriptions may begin with any number.

☞ No paper will be discontinued until all arrearages are paid, except at the option of the Editor.

☞ Office corner Main and Twelfth streets.

### ADVERTISEMENTS.

A limited number will be inserted at the following rates: For each square of ten lines, first insertion, ONE DOLLAR; each continuance, SEVENTY-FIVE CENTS. Advertisements out of the City must be accompanied with the money, to insure their insertion.

☞ It is indispensably necessary that subscribers ordering a change should say *from what to what* post office they wish the alteration made. It will save time to us and lose none to them.

☞ Postage on the Southern Planter, (when paid in advance,) to any part of the United States one cent and half per quarter, or six cents per annum.

### THE WHEAT CROP AND THE PRICE OF IT.

A common way of speculating in flour is this: one merchant agrees to sell to another, say, five thousand barrels of flour, sixty days from date, at seven dollars per barrel; and when the day comes for delivery he never hands over a single barrel, but pays or receives the difference between seven dollars per barrel, and the actual price of the flour at the day. If flour, for instance, has fallen one dollar, he pays over five thousand dollars; if it has risen, he receives it from the other party to the contract. In reality, it is not a sale, but a bet; and as soon as it is closed, each party, like jobbers in stocks, turns out to bend the market to his views, so as to win the stakes.

The same thing may just as easily take place in wheat, only still more adversely to the interest of the producer; and when there is a disposition to speculate in grain we see the result in the conflicting accounts of the presses which each party has secured, as to the actual production of wheat, and in the fluctuations of the market. Such reports and such fluctuations are but part of the

game played. We mean to cast no imputation on the press, or to insinuate that their opinions are paid for. They may, and no doubt, in most cases, do, very honestly entertain the opinions they have derived from those parties to whom they look for information—the dealers in grain—and which opinions it is their duty to give. We only mean to let the farmers know, that, even with the best intentions, newspapers cannot always get access to disinterested authorities, but must give the views of others, and of buyers, in most cases.

We, therefore, think it safer to judge by the past, by the history of food consumption for a recent period, and by the weather that we have had, than by any such statements as papers sometimes parade of the number of bushels which the world will bring into the market. The wide discrepancy in recent estimates of the New York Herald and the Cincinnati Price Current, one putting down the present crop at 168,575,000, the other at 114,500,000, a difference of 54,075,000 bushels, proves that all such estimates are mere stuff. As we said before, no man can estimate the wheat crop of Virginia, because its delivery takes place at so many different outlets. The same is true of all other States, and cannot be otherwise.

Of the crop of Virginia, as affected by weather and other disasters, we have spoken before. Every day confirms our opinion of the correctness of the views then expressed, and we have received numerous letters assuring us that we were right as far as the particular crop of each writer's section was concerned. In fact we merely took ground that a hard winter, an unexampled spring drought extending far into June, and a superabundance of insects, could not yield their disastrous effects to a few late rains and a fine ripening season. This was true of nearly all the United States, whilst the same drought embraced England and France, and must have operated to injure crops there.

Our private advices, as far as we have them, bear us out in this opinion as to the rest of the Union. A friend, for instance, whose veracity and judgment and disinterestedness we avouch, writes in a letter to another gentleman, and not intended for us, that in four thousand miles of travel over parts of the North and West with which he was familiar, he did not see one single good wheat crop. A neighbor of his, going over the same country an equal distance, but by a different route, gives the same account. Both are farmers of the county of Loudoun, and by profession and from locality know what good crops are. And though the crops are much better everywhere than was expected from the early prospect, they cannot be good anywhere.



England last year made the finest crop she ever made, and has eaten it up clean. This year her harvest will be late, and farmers know that here the chances are always against wheat's yielding well in a late harvest, whilst there liability to disaster in securing the grain is greatly increased. Meanwhile her consumption is increasing; her armies will need more than she can spare; and after last winter's experience in the Crimea, where they are very likely to winter again, they will supply it with grain in waste. But they can only get what they want from us. Her northern sources of supply are cut off, her others are more or less insignificant. The whole of continental Europe, now on a full military establishment, and prepared for active movements at short notice, must consume more whilst it makes less, because she has a larger army and fewer producers; and France, from whatever cause, has her ports opened until the 31st of December, by decree of the Emperor—a thing never known before.

With this state of things we cannot see what is to pull down the market.

We know that at \$2 50 per bushel our wheat did not bear export the past season, but was all consumed at home. But the case may be very different, if England, who generally goes into one harvest with a surplus from the other, shall commence the present with an empty belly, and find her neighbors no better off in that particular than herself.

Still, wheat has receded some fifty to seventy cents since the new crop began to come in. Why? Because there is more than enough now on hand for the present supply, which still feels the influence of an unusually high price, whereas six weeks ago there was a great scarcity, and because the time when wheat will be wanted in any quantity for shipment, at high prices, has not yet arrived and may not come for three months, or even a longer period; there is no reason, therefore, for its keeping up just at this time. But to force it on the market now, in a panic, would only make it still lower. A few weeks since, money, in New York, was not worth six per cent., at call, but nobody witnessed the spectacle of capitalists forcing loans on the community in consequence. On the contrary they were rather inclined to hold up. As little do we think should the farmer feel incited to send his wheat forward now merely because it has taken a tumble of five or ten or even twenty cents in the bushel.

He should look into the subject and not feel alarmed if he finds a set of Baltimore speculators running up the price of wheat to entice shipments and putting it down when they think they have enough for their purposes, on the way. Even if wheat should go down still lower we see no cause for anxiety, but rather reason to be glad that so

much as a panic may secure to the market is taken out of the way of future operations.

The above are our present opinions of the wheat market. We know that others think differently, and we beg the farmers to hear both sides and then make up their minds for themselves. If we have fairly stated the above facts, they are as capable of weighing their bearing as we can be; many of them more so. But they should do it in good temper. We see no reason to charge combination on the millers of Richmond, but rather some evidence of competition among them. Two of them sold their crops at \$2 00, and are charged with a disposition to influence prices thereby. That may have been the case, but those gentlemen had the fortune to have wheat for sale, and in justice to them we should remember that if they had held on, it would have been just as easy to charge that they were waiting for the rise. If there be any cause of complaint it is not that they sold at \$2 00, but that they fixed the price of their own wheat at an earlier period, by one month, than they had been in the habit, heretofore, of fixing the price of other people's. And that may be explained on charitable hypothesis.

As to any combination of theirs affecting the price of wheat permanently, we ought to know the impossibility of that. The laws of trade are stronger than the millers of Richmond, and when wheat is worth more at other places than they are willing to give for it, it will be sent to those places.

The state of navigation of James River, and not the power of the Richmond City millers, is the thing to look to; and until that is put in the condition it ought to be in, we who go to sea by that channel must always come into market at a disadvantage.

We see no cause, therefore, for displeasure with them. They mean to buy wheat and barrels as low, and sell flour and offal as high, as they can; and the way to defeat them of extra profits is, not to charge them with improprieties, but ourselves with folly. We frown at the millers now, when, if the river were cleaned out, we could laugh at them.

For ourselves, we are rather inclined to be proud of them. There are no finer monuments of the enterprize of Richmond than the immense structures her millers have reared. If they have made fortunes we are glad of it, and no man should begrudge them one cent of their gains when he remembers that they have done it by making the best flour in the world out of Virginia wheat. If their sagacity has enabled them to take advantage of circumstances adverse to the farmers, which the farmers themselves have not chosen to alter, we do not see the harm of it.

"But what shall I do?" says a puzzled farmer.

"James river is not cleaned out, but my wheat is, and is ready for market." My friend, do what your judgment prompts, and consult that. If the prices are "satisfactory," as the Whig says, sell; if not, keep it, but in whatever you do judge for yourself when you get the facts.

"But my wheat will not keep in good order." True, and it may be worth less when it comes to market than a first-rate sample; but if every man acts on that rule, the wheat will accumulate here faster than it is wanted; that will put the price down, and then it must be stored at the miller's risk, and of course *you* pay for it. The question then is, whether *you* can store and insure more cheaply in Richmond than in your own barn. We rather incline to think that as a general rule the later deliveries come in better order than those which are hurriedly threshed, perhaps from damp wheat, and brought in bulk in hot weather to Richmond, and that the risk of home storage is generally overrated.

There is also the resource with many of grinding at home; and there are many ways of avoiding the evils of keeping, when forethought and prudence are consulted.

But in meeting these obvious objections we do not mean to invite people to hold on to their wheat. We only do it for the benefit of those with whom those *alone* are stumbling blocks, and who but for them would not deliver at once.

We give facts and opinions, as bound in duty to the public whom, we profess to serve, (and by-the-by are poorly paid for it), but we protest now, as we did in our last, against being responsible as if for private advice given to each of our readers.

Since writing the above we have heard that a cargo of wheat is coming around from Baltimore. We are glad of it, as it shows that wheat is wanted here, and is likely to bring a good price. When our millers have foreign orders they may sometimes be compelled to fill them by getting wheat from other quarters if the home supply is short, and for aught we know that may be the case at present; or some man, who does not mean to be caught in the Baltimore trap, may have shipped to this port. It were a pity to let one load of wheat from Baltimore put down the price of the crop in Virginia, even for a moment.

#### DISEASES OF COWS.

We refer those living in the region of cow distemper and on tide water, to two communications on these diseases, in this number, both written by medical gentlemen. We think that they are writing on different diseases and have no doubt that Dr. A. F. P's were all cases of bilious fever, whilst Dr. Crump had to contend with the much more formidable and obscure Carolina distemper on which Dr. Morton wrote so interesting an essay for the State Agricultural Society.

#### THE PRESENT NUMBER OF THE PLANTER.

We think it not improper to allude to the quality of the articles in the present number of the Planter. Except a few extracts, of no great length, every article is original. Besides those from different parts of Virginia, we have one from Boston and one from New York. The fact is the Planter "is rising," and all it needs to its permanent improvement is about ten thousand additional subscribers, and \$9,000 from the present "*Patrons!*" ("Please call at the office and settle.")

We have delayed this issue a day or two that we might give the latest information about the Wheat crop.

#### PITRUSIAN WHEAT:

*Procured from the Island of Yvica, by the U. S. Consul at Alicante, in Spain.*

We have received fifty packages of the above wheat for distribution. They will be sent to all applicants who will enclose three postage stamps, which is just the postage on a package. No order will be attended to without the stamps.

It is a Mediterranean wheat, which appears to be mixed, red and white, and not a very favorable sample, with some few seeds of weeds in it, and seems to have been trodden out. Unless it possesses some peculiar qualities, as the wheat which is known in Virginia as the "Red bearded Mediterranean certainly does, it is not valuable, nor even second rate, compared with our good wheats in Virginia. And this is the opinion of one of the best millers in our city.

Still, it may be worth a trial.

We have also, more recently, received twenty additional packages of white wheat, *Geja* it is called, from the same locality, an indifferent sample.

#### FAIR OF THE SEABOARD AGRICULTURAL SOCIETY.

This Society is composed of some thirty counties of Virginia and North Carolina: We attended one of its exhibitions two years ago, and can commend it as well worthy the attention of Farmers and Exhibitors all over the State.

To our mountain friends it is especially worthy of notice, because they who have never seen it, or have only looked at its distant shores from the deck of a steamer, cannot imagine the richness and productiveness of the country, and the energy and thrift of the Farmers who till it. We have the promise of a friend to give us some facts of this sort for the September number of the Planter, which we think will surprise the farmers of the upper country.

Nothing can more conduce to patriotism and cordiality of feeling among our own people than

an exchange of visits, and it is becoming necessary to our safety and defence that we should be thoroughly united in feeling, as well as interest, and welded together in resistance to a storm which we cannot but think will shortly spread beyond the limits of the Halls of legislation.

The people of tide water know the mountains of Virginia familiarly and love them well, but they wish their country to be equally well known by their friends of the upper country, and are anxious that the visit should not be put off until duty makes it necessary.

No place can be healthier than the Seaboard until July, and that is the season when the visiting should commence. The calls will all be returned in August. And in November again Norfolk will give a festival and invite the whole of Virginia to the feast.

#### GUINEA FOWLS VS. RATS.

We endorse the gentleman who makes the following statement.—ED. SO. PL.

For the Southern Planter.

I see a doubt expressed in the last number of the Planter as to whether Guinea Fowls will drive off rats. My premises, for years past, have been overrun with the pests, I say for years past, I mean until within the last two years; two years ago, very much against my will, one of my children got a pair, the rats soon after disappeared and I haven't seen or heard of one since.

B. R.

For the Southern Planter.

#### TO DRY DAMP WHEAT.

When my wheat is damp I use the driest and cleanest plaster; perhaps calcined plaster will do best, as it is more absorbent of moisture, and dust the bulk well over, taking care to mix it thoroughly. As soon as you find the Plaster to feel doughy, I run it through the fan and re-apply the Plaster, and repeat the Plaster, if necessary. It gives the wheat a lively appearance and none will stick in the sieve. Lime will dry the wheat, but some of it will stick to it and give it rather a dingy look which detracts from its looks, and some millers object to it on that account, but I have had flour made of a remnant of my seed wheat, and thought it improved the quality of the bread.

It is said lime water is better and more wholesome than soda. I have tried lime water, and think it improves the quality of the bread.

Yours truly,

N. M. OSBORNE.

Willow Hill, P. G., July 16, 1855.

[It can be calcined very easily by any one. Fill a large iron pot with it and put fire under the pot, just as if to boil water. In a short time it will bubble furiously, as if it were boiling. The process is complete when the Plaster begins to get

lumpy. If a stick is then inserted in the mass it will adhere to it, whereas before the operation it will run off from the stick like sand.—ED. SO. PL.]

To the Editor of the Planter:

DEAR SIR: Several of us being desirous of procuring a Guano Spreader in time for seeding wheat next fall, and wishing to gain all the information we possibly can ere purchasing, as to the best implement and propriety of using it, will such of your subscribers as have given the Spreader a fair trial, give us the benefit of their experience? and will you be so good as to inform us which of the twain received the premium last fall, as there were two on exhibition? A SUBSCRIBER, J. C.

We have no experience in sowing guano by machinery. Who has?

The premium for the best Guano Spreader was awarded to Joseph W. Fawkes. We think Baldwin & Cardwell, implement makers, of this city, are agents for the machine.—[ED. SO. PL.]

For the Southern Planter.

#### USEFUL HINTS FOR VIRGINIA GARDENERS

BY E. G. EGCELING.

August is the last, and usually the hottest of the summer months. There is comparatively little to be done in the garden, except attention to cabbages, turnips and strawberries, concerning which we will give directions.

**Cabbages**—If the crop for the winter use was not planted entirely during the last month the gardener may continue setting out plants up to the fifteenth of August. By that time the whole crop should be planted. Such as have failed to raise plants, either wholly or partially, may now sow the seeds of the large York variety. Plants may be reared, which will be ready for transplanting the last of the month or the first of September. The large York matures quickly and if planted at the period indicated will head very nicely before the cold weather sets in.

**Strawberries**—The latter part of the month is the proper time to make new plantations. Partial directions, as to the mode of proceeding will be found in the Planter for July. They should be planted in drills, the rows being distant from each other two feet six inches, and the plants fifteen inches from each other in the row. They should not be planted out unless the season is favorable and then they should be treated as we directed in the July number. In planting cabbages, the earth should be well spaded and manured before the plants are put out. This is important.

**Turnips**—From the first of this month to the latter part of September is the period for

sowing turnip seeds. Gardeners may begin at once. Land for turnips ought to be very rich but not made so by recent applications of manure. That does not answer so well. If there is a spot, where potatoes were cultivated, it suits well, but the best of all is virgin soil, well manured with guano. The best turnips we have ever seen were raised upon very poor soil which had been well dressed with guano. That acts like a charm upon the turnip. Indeed we know of no vegetable that is so much benefited by it. It is customary to sow turnip seed broadcast, but they will do better if sown in drills, the rows eighteen inches apart, and the seed being sown thinly. We would advise, also, that the land be well rolled to crush all the clods. When these lie about, they harbour the insects which attacks the young plants where they first make their appearance. For early sowing, there is the early flat dutch and red topped; for later sowing, there is the Large Norfolk, Large Globe and Purple Topped.

The Ruta Baga or Swedish Turnip ought to be sowed without delay.

*Snaps.*—This is an excellent season for sowing snaps for pickling purposes.

From the Southern Farmer.

WOODLAWN, January 15th, 1855.

MESSRS. EDITORS: During the past year I made an experiment to test the effect which the pulling of fodder would have upon the corn from which it was pulled. The result surprised me not a little; and as I think the experiment a valuable one, I herewith send you a full statement of the manner of conducting it, and the result. I selected a portion of my corn field in which the rows ran perpendicularly to a road, and counted sixty rows along the road. I then measured seventy yards along the rows on each side of the piece designed for the experiment, and marked off a line parallel with the road at seventy yards distance from it. This embraced 4,200 hills, from the alternate rows of which, the fodder was stripped to the top, leaving the intermediate rows untouched. After the fodder was cured, I weighed it, and found that I had just 200 pounds, which, at \$1 25 per cwt., is worth \$2.50.

The two parcels of corn were kept entirely separate until the test was fully made, which was done in the following manner, viz:

Having the two piles before me, and wishing to ascertain the number of ears in each parcel, I commenced with that from which the fodder was pulled and counted 75 ears into a basket, from each draft, until I had weighed the whole of it. I then went through the same process with that from which no fodder was pulled. By thus counting, I found that I had upwards of 100 ears more in the portion from which the fodder was not pulled. This surplus I divided between the two parcels, so as to equalize the number, and found that I had 1,119 pounds in the former, and 1,362

pounds in the latter portion, being an increase of 243 pounds in favor of not pulling fodder.

I then shelled the same quantity from each parcel, to ascertain the portion to be deducted for husks. This amounted to one-fifth in each case.

The result gave me 195 pounds of shelled corn, in the place of 200 pounds of fodder, which was suffered to remain on the stalks.

This last one pound of being  $3\frac{1}{2}$  bushels which, at 80 cents, would give \$2.80; showing a loss of 30 cents, which is equal to 48 cents per acre, besides the labor of pulling and securing the fodder.

To show that no exaggeration existed in this experiment, the ears were counted, and the number equalized, as before stated. The inequality which existed may be accounted for in two ways. First, many ears were broken off in pulling the fodder; and secondly, many were prevented from maturing by having the fodder pulled from the stalks.

It may be supposed that this fodder was pulled too soon. In the common acceptation of that term, such was not the case. I suffered it to stand until it was thoroughly ripe, or what is termed, suffering for the want of pulling.

This experiment shows an entire loss of 18 bushels to the hundred, or one sixth part of the crop. The above was an experiment allotted to me by the Prince George's Hole and Corner Club, of which I am a member. If you think it worth publishing, you are at liberty to use it in that way.

Yours very respectfully,

JNO. H. BATTE.

P. S.—If you think the above deserving of a place in your journal, you will confer a favour by giving your views on the best mode of providing a substitute for fodder. J. H. B.

POINTS OF A GOOD MULE-BEARING MARE.—The district round Poitiers in France has long been celebrated for Mules. It appears that twelve millions francs are annually realized by the export of these animals to Spain, Italy, and the central and southern parts of France. The Poiterin farmers, consider a mare with the following points, especially desirable for mule bearing: A short body, long ribs, wide haunches, wide and low hocks, fleshy thighs, wide hoofs, heels well turned out and hairy; in short, a thickest animal of capacious body is the right mould for a fine mule. Will some of our experienced mule breeders inform us how this agrees with their observation?—*Country Gent.*

#### USE COPPERAS.

The papers are everywhere urging the free use of copperas as a disinfecting agent. It is a cheap article, costing only three cents per pound, and can be found at the druggists, and many of the larger grocery stores. A couple of pounds may be dissolved in ten quarts of hot water, and the solution poured into sinks, gutters, ccess-pools and all other filthy places with good effect. We advise all house-keepers to purchase five, ten or fifteen pounds, and make a free use of it as above recommended. Cholera or no cholera, their dwellings and out-buildings, will contain a purer atmosphere after the use of copperas.

## SHEARING SHEEP BY MACHINERY.

The Scientific American announces the fact that a Michigan Yankee, by the name of Palmer Lancaster, who lives in Burr Oak, in that State, has invented a machine to shear sheep, and which will probably put the old sheep-shears out of sight. It thus describes its operation.

"The machine, which is small and neat, is hung by a strap to the arm of the operator, and placed on the body of the sheep to be shorn. By simply turning a handle back and forth, and moving the machine over the body of the sheep the wool is made to fly off in double quick time. It is well known that the most experienced hands at sheep shearing do not cut the fleece even; and besides, the skin of the animal is invariably clipped out by the shears in many spots. This instrument cuts the fleece rapidly and evenly, never cutting any part of the fleece twice; and it avoids cutting the skin of the animal; it is therefore a humane as well as a labor saving contrivance."

[*Maine Farmer.*]

For the Southern Planter.

## SHEEP.

I was for some years unsuccessful in sheep-raising and wool growing, having all of the time a fair chance for success. Year after year, I added to my stock, buying from droves from the mountain drovers—nearly every one of which I lost; as was said by my old negro man who attended to them, "master, these drove sheep have the distemper, or some other ailment." At length I found the ailment was from loss of teeth by old age. I thenceforward ordered him at shearing time to put a death-mark with tar upon every sheep which had bad teeth. The following fall I fattened four or five muttons from those bearing the death-mark.

To make a sheep fat, is one of the easiest things imaginable. You have only to keep him gentle and at command, and you may make him thoroughly fat in from two to four weeks by giving a gill or two of meal, mixed with moistened straw, chopped turnips, or cabbage leaves three or four times a day.

There is a popular error extensively prevalent, that to stall beef or mutton, you must stint them in water. This is against nature and against reason. Let them have free access to water, and they will very rarely drink enough to hurt them.

It is hard to forego the pleasure of eating fat lamb and green peas in their season. But the true policy of those who go for the fleece

and meat, is to spare the young and slaughter the old. In my opinion, no provident sheep and wool grower will slaughter an ewe lamb; and even the young rams ought to be castrated and spared, until they become full-grown wethers.

There is a foolish popular prejudice against bull-beef and ram-mutton. Any man, yea, even the most fastidious lady, who loves good beef and mutton, can easily be cured of this prejudice. Let the animal be castrated before cutting his throat—and bled nearly to death by the operation. Then let his intestines, &c., be taken out as soon as possible; the cook can arrange the balance, by first salting and then steeping in cold salt water a while, then par-boiling so as to make it tender before baking, or roasting, I have tried it, under my own supervision.

T. STREET.

June 18, 1855.

## MULCHING WITH WOOD SHAVINGS.

E. Hersey, in the *New England Farmer*, recommends wood shavings as a mulch for young orchards. He thinks them equal to anything he has tried. Here is his experience:

Having a few fruit trees set on a barren knoll, which, although they had yearly assumed the appearance of premature decay, and in fact had already taken the down hill course, I resolved to try the effect of mulching with shavings. Around each tree I put two barrels of shavings, within a circle of eight feet in diameter, leaving a small space between the shavings and the tree to be filled with fresh earth. To keep the shavings snug, a thin coat of grass was spread over the whole. To fully test the experiment, a part of the trees were treated the same as they had formerly been. After the lapse of one year, (which was last year) those trees mulched with shavings, put out vigorous shoots, and their dark green foliage could be easily distinguished from the others at a great distance. So well satisfied was I with the result, I last year used upwards of a hundred barrels, which has proved equally beneficial to the trees, while the first I mulched continued to thrive even beyond my expectation.

If any of your readers have used the above named material, I hope they will communicate the fact, and state with what success.

I have found brush from evergreen trees to be an excellent material for mulching young orchards.

Had this been resorted to last summer the life of many a valuable tree might have been saved from the drouth.

## THE TAMARIND IN VIRGINIA.

William G. Singleton, Esq., of Winchester, Virginia, communicates the following to the Commissioner of Patents:

"Of all the ornamental trees propagated among us, either foreign or native, there is none, in my judgment, more desirable than the tamarind. Its growth is rapid, its form symmetrical, its foliage beautifully delicate, and is altogether highly ornamental; besides, it is perfectly free from blight, as well as from the deprivations of insects. If cultivated on our western prairies, it would, doubtless, form a valuable acquisition.

"From the growth of some tamarind seeds which I obtained from a confectioner's shop some eight years since, I have a tree standing in my yard eighteen inches in circumference. The past season it perfected its fruit, which, in quality, was equally as good as that imported. The seed may be sown in drills about four inches apart, and covered from two to three inches deep with light rich soil. They may be sown either in the fall or spring. If in the latter, they should be exposed to the weather during the winter previous, in order that their hull or coverings may be acted upon by the frost. When grown to a height of three or four feet, the young trees may be transplanted in the sites where they are permanently to remain."

## CURRANT WINES.

As currants will soon be ripe, we give the following receipts for making wines from them, believing that in case of sickness they are very excellent. Gather the currants when fully ripe; break them well in a tub, press them through a sifter; then strain them through a flannel bag, and measure the juice; add two gallons of water to one of juice, put three pounds of N. O. sugar, stir it till the sugar is quite dissolved. In straining the juice of the currants, use a hair scive, and not one of wire; then use a close tow-linen bag, and afterwards a flannel one to pass the juice through. The juice must not be permitted to stand over night. Observe that the cask be sweet and clean, and such as has never been used for cider, and if new let it be well seasoned. Do not fill the cask too full, otherwise it works out at the bung, which is injurious to the wine—rather make a proportionate quantity over and above, that after drawing off a portion of the wine you may have enough to fill up the cask. Lay the bung lightly on the hole to prevent the flies, &c., from creeping in. In 3 or 4 weeks the bung hole may be stopped up, leaving only the

vent hole open till it is done working, which is generally the middle or last of October.—It then may be racked off. It is best to leave it on the lees till spring, and if not wanted for present use, it may be left on the lees for two years without damage. When drawing off, bore an inch at least from the tap hole, and a little to one side of it, that it may run off clear of the lees.

ANOTHER METHOD.—Strain the currants, which should be perfectly ripe. To every quart of juice, put a couple of quarts of water and three pounds of sugar; stir the whole well together, and let it stand twenty-four hours without stirring; skim and set in a cool place to ferment slowly. Let it remain three or four days; if at the end of that time it has ceased fermenting, add one quart of French brandy to every fifteen gallons of the liquor, and close the cask. Bottle when clear. It will be fit for use in about six months, and improve by age.

Black currant wine is also excellent in cases of sickness, such as diseases of the bowels.—It is made in the same way as the red currant wine by the last receipt.—*Practical Farmer.*

## BUTTER FROM GREEN RYE FEED.

Benjamin Garrigues, one of the most respectable farmers of Montgomery County, Pa., who has had over forty years of practical experience, writes to the Germantown Telegraph, under date of Upper Dublin, May 16th, that he has been mowing fall-sown rye for over three weeks; and the result has been that he has had as much milk, and of as good quality, as could have been obtained from the best of pasture. He sends a sample of spring made butter, which the editor pronounces "excellent, high-flavored, and of a deep golden tint." Mr. G. sows rye for pasture upon ground designated for potatoes, manuring is well with stable-manure or guano, the latter of which he prefers. [*Am. Agricult.*]

## KEEPING FURS IN SUMMER.

On the approach of warm weather, lightly whip, comb and brush your furs till they are perfectly free from dust, sprinkle them with a little spirits of any kind, and wrap them in clean linen. Put them in a tight box or drawer, and keep them from the air as much as possible. In this situation they may remain ten or fifteen days, when they ought to be examined, and the whipping, combing and brushing repeated.

The insects most destructive to furs, are, first, the black bug which infests smoked meats,

&c. It appears and deposits eggs early in the spring. This kind of moth does not eat the fur, but preys altogether on the skin. Next, the small ash-colored miller, which produces the moth that destroys all kinds of woollen stuffs, and may be seen hovering about the candle on a summer evening. This kind particularly preys upon and destroys the furs, and ought to be most guarded against, also the mites, which are very numerous. They appear like dust. They subsist upon and destroy the fibrous membrane which attaches the fur to the skin. Hence the practice of sunning and airing furs is highly prejudicial, for as insects fly about in the air, it not only affords them an opportunity of getting in and breeding, but the warmth of the sun nourishes and supports them, and at the same time spoils the color and destroys the life and beauty of the fur.

Coarse furs—such as bear and buffalo skins—may be preserved by beating them well in the spring, and heading them up in an airtight spirit cask, which had been recently emptied. Especial care must always be taken to have furs, woollens, &c., clean and free from insects when they are put up for the season—and no means are adequate to the preservation of furs that are badly dressed and not cleansed of the natural grease.—*A Troy Farrier.*

LIME AND SALT.—A discussion took place last week in the N. Y. Farmers' Club, respecting the combination of salt and lime. It has been said that salt and quicklime, when mixed together, unite chemically, and form carbonate of soda and chloride of lime. This was denied by Mr. Judd, in opposition to some chemists present. He asserted that no chemical change took place in the mixing of these substances, and requested those who thought differently to furnish respectable proof to the contrary. This was not done, and he remained master of the contest. We rather think he is right, for we cannot conceive how carbonate of soda could be produced from a mixture which contains no carbon.

*Scientific American.*

For the Southern Planter.

AGRICULTURAL SCIENCE.

*Editor Southern Planter.*

DEAR SIR: In the June number of the "American Cotton Planter" I find an article selected from your paper, from the pen of Mr. R. T. Baldwin, of Winchester, to which I desire to make reply, because I believe that the conclusions to which the writer arrives are in direct opposition to the teachings of those

"best authors" whose works he thinks adequate to impart "a sufficient knowledge of the subject to become successful, practical farmers." In the discussion of the subject I would avoid everything of a *personal* nature, and merely criticize the deductions apart from the *individual* arriving at them.

The first opinion to which my dissent must be entered, is,—“that altho' the Creator has compelled man to earn his bread by the sweat of his brow, he has adapted the 'art of deriving from the earth its most valuable organic products' to the plainest understanding.” When we consider, that with the many years of a thorough system of experimenting pursued in England, and with all the aid furnished by the brilliant minds of Germany, France, and England, the science of agriculture is but in its initial condition, it may well cause some surprise that this simple, transparent handicraft has not been fully recognised by the common understandings of Virginia farmers, and their lands redeemed from that “deplorably impeverished” condition the writer so much bewails.

We can not wonder that this conclusion has been arrived at by one who denies that chemistry and agriculture have any relationship, for the very *commonest* understanding could perceive that to produce plants, two things are requisite, a seed, and a soil; that by industrious application the crop might be kept free from weeds, or, that if the ground were covered, with water or stones, the seed would not germinate; but to know what *caused* the soil to germinate the seed, or what that seed, grown to a plant, would appropriate as food, or whether his soil had the parts from which the crops might be built, he must have something more than an unaided “common understanding.”

The gentleman will admit that *to produce any given result, the necessary conditions must be presented.* Hence, to build a rig of a ship we must have a certain quantity of timber, iron, cordage, etc.; to build a house we must have the brick, stones, wood and mortar; and to build a plant, we must always have those matters, organic or inorganic, which are found to constitute its organism.

When, therefore, we discover by certain, simple and unerring tests that some soils are naturally *deficient* in certain of these inorganic ingredients, *how shall the crop be produced?* I know that the gentleman denies that the mineral salts are necessary to the growth of plants; but, while I would accord to him the right of private judgment and the weight of his influence so far as it is supported

by science, I beg leave to endorse the following axomatic propositions, taken from the work lately published by John Wiley of New York: "On the most diversified soils, in the most varied climates, whether cultivated in plains or on high mountains, *plants invariably contain a certain number of mineral substances, and, in fact, always the same substances; the nature and quality, or the varying proportions of which are ascertained by finding the composition of the ashes of plants.* The mineral substances found in the ashes were originally ingredients in the soil; all fertile soils contain a certain amount of them; they are never wanting in any soil in which plants thrive."

2. "The soil is richer in these matters before seed time than after harvest; or, in other words, *the composition of the soil after harvest has changed.*"

3. "After a series of years, and a corresponding number of harvests, the fertility of the soil or field diminishes. While all the other conditions have remained the same, the soil has not done so; it is no longer what it was at first. *The change which is found to have taken place in its composition, is the probable cause of its diminished fertility.*"

4. "By means of solid and liquid manure, or the excreta of men and animals, *the lost or diminished fertility of the soil is restored.*"

5. "Solid or farm yard manure consists of decaying vegetable or animal matters, which contain a certain proportion of the constituents of the soil. The excrements of men and animals represent the ashes of the food consumed, that is, oxidised or burned in the bodies of men and animals. The urine contains the soluble, the solid excreta, the insoluble constituents of the soil, derived from the crops used as food, and reaped from the soil. It is clear, that, by adding manure, that soil recovers those constituents which have been removed from it in the crops. Thus, the restoration of its original composition is accompanied by the restoration of its fertility. It is, therefore, certain that *one of the conditions of fertility in a soil is the presence in it of certain mineral constituents.* A rich, fertile soil contains more of these than a poor, barren one does.

It is universally admitted that Baron Liebig is our highest authority on all Agricultural subjects, and I may, therefore, be pardoned the above lengthy quotations from his last work, as they are a sufficient answer to Mr. Baldwin's seventh proposition, viz: "*All soils, no matter how poor, or by what process exhausted, may be made exceedingly fertile without the addition of any substance, whatever.*"

He seems to fear that the acquisition of a liberal education will render us unfit to become practical farmers, and that we would never consent to the drudgery of field labor; and yet, in his next paragraph he eulogises the men who "having completed their education at the best seminaries of learning, with cultivated minds and liberal views, return to take possession of their farms, provided with abundant slave labor." In this case, who is the practical farmer? Is it the drudging laborer, unenlightened by the light of knowledge, performing certain processes, the use for which he knows not? or is it the *real farmer*, the *practical* man, who, as he himself goes on to state, "by careful observation and attention, and by the perusal of the works of the best authors, in a few years acquires sufficient knowledge of the subject to become successful, practical farmers?"

On this point there is no controversy between us; I see, as does the author of the letter under review, that a liberal education, with experience, and that knowledge to be obtained from those acquainted with the subject, cannot fail to render any man a farmer, more or less *practical*, as he makes application of his knowledge.

The gentleman does not object to make use of the magnetic needle, furnished by science to the uneducated navigator; he is willing to warm his house with a compound gas (carburetted hydrogen) obtained by a chemical process from coal formations; and will wash his hands with a compound, whose mode of manufacture was indicated to *practical* laborers by chemistry, why then, will he reject the aid which this same science offers to the noblest of occupations and parent of all arts, Agriculture? Why is he content to see his land grow less and less productive, until it refuses the smallest return for the usual amount of labor? Why will he ignore the fact that the processes of growth are chemical ones, and that if one of those processes is destroyed, it is by *chemistry* alone that we can understand how to apply the remedy? He is wrong in supposing that because by a close system of study one naturally incapacitates himself for manual labor of the more violent nature, a man is not able to be so thoroughly *practical* as to give each department of farm labor the motor principle that shall bring about the most desirable results.

After making the assertion that there is *no such science* as Agricultural Chemistry, he makes the following arguments:

1. "It contradicts the experience of the practical farmer in the assertion that different plants require different nutriment, for every practical farmer knows that however poor land



may be, if well manured, it will perfect any crop that ever grew in Virginia." Softly, my friend; you have already told us that "*no matter how poor soil may be, it may be made fertile without the addition of any substance whatever.*" Why, then, would you add manure to produce crops? But you mistake when you say that different plants do not require different nutriment, for how is it that if phosphoric acid and lime, together with nitrogenous substances, be not present in your soil, *you can get no wheat?* or that without *potash* no potatoes will grow? or, that a field without *lime* refuses to bear clover? Unless the manure you are applying to a poor soil contains the necessary constituents, you may rest assured that your crop will not grow as you suppose. You may apply lime to your soil year after year, until the field is one huge reservoir of it, and unless the phosphates are present, or the chlorine, or the sulphuric acid, or any other of the mineral salts you think so lightly of, you wait in vain for your wheat, your corn, or your tobacco.

2. "The analysis of all similar vegetable and animal substances are alike, whether they be obtained from the North Pole or under the Equator, nor do the results of analysis differ with the quality of the food consumed with them during life." To answer which I will, for a moment, refer you to the quotation from Liebig, No. 1, where he speaks of the "nature and quality of the *varying proportions*" of certain mineral substances found in plants, thus showing that even the proportions of the *mineral* constituents are not the same under different circumstances. I shall then refer to the celebrated lectures of Alexander Petzholdt, (which have the sanction of the Edinburgh Quarterly Review,) who says that in two experiments with wheat, it was found that one plot manured with cow dung had only 12 per cent of gluten, while the other, manured with night-soil (other conditions being the same) contained no less than 35 per cent., added to which we have the fact, (stated by Prof. Norton, of Yale College and other *practical* men) that wheat grown in warm climates always contains a larger proportion of gluten, than that grown in more northern latitudes. What does our friend say to this? Will he still maintain that plants of a similar class do not alter in their composition? He says:

3. "The processes of digestion and nutrition are chemical processes," &c., and yet we are told, previously, that "the science of Chemistry has no relation to the science of Agriculture." The contradictions in the letter are so patent that we can only suppose that

the intelligent writer is writing to provoke a reply, that others may derive benefit from his explanations. If this be so, we are heartily willing to receive the castigation for the profit of a science to which I must confess a deep admiration. But let us proceed. Our author next says: "If the mineral salts found by analysis in the ash of plants are the same which were derived from the earth, during their growth, this would prove that they did not serve as nutriment to the plants, not being chemically changed." We can only have an admiration for that species of mental *diastase* which has changed the facts of the case into the above ingenious hypothesis. As well might he say that because the water found in the turnip is not different from that found in our wells, it has served no purposes of nutriment to the turnip; and that, consequently, of one hundred pounds of turnips, the ninety-five pounds of water is so much foreign matter, of no account, merely held in a mechanical connexion with the turnip, as a gravel stone is held in the craw of a hen. The truth is, that, despite the similarity between the mineral portions of the plant and those of the soil, *unless they are in a soluble state ready for appropriation, the plant refuses to grow.*

5. "Combustion being a chemical process the analysis of the ash of plants cannot possibly demonstrate the same salts which existed in them previous to combustion."

In the work of Liebig, previously quoted from, we find the following: "A substance, chemically combined with another, in consequence of the attraction between its elements, opposes a resistance to any other substance tending to combine with it; and this resistance must be overcome, if the new compound is to be formed." We, therefore, perceive that where an acid and a base are united to form a salt, there must be evolved in the process of combustion, some extraneous force, strong enough to destroy the union, or the mineral salt will be found unchanged. That combustion or decay does always so modify their relations, is not a fact. We must remember that in the process of combustion it is the *organic* portions of the plant or animal which are changed essentially in their conditions, and that owing to the *mineral* nature of the inorganic it requires such an amount of heat to alter the chemical relations of their constituents that before attaining it, the organic parts would have been entirely volatilized and decay have ceased.

6. "The mineral salts cannot be proved to be the fruit of plants, (we suppose he means the *product*) when separated from the ashes

which contained them." Astonishing conclusion! As well might he say that because I cannot tell where my pen was made, it is not fit to write with; or, expect me to tell, if the brick which one hands me, has been in the wall of a house, or of a furnace. If we find by analysis, that our mineral salts are present in the ash, we may be certain that they were of use to the living plant, or it would never have been allowed to enter. Altho' more intelligent man will put into his stomach foreign substances not necessary to nourish his body, and will destroy his nervous energies by the use of tobacco and other narcotics, we have to learn of the first analogy to his crime, in the vegetable world.

The final proposition and the most audacious of all is the one quoted in the first part of this article, viz:

7. "All soils, no matter how poor, or by what process exhausted, may be made exceedingly fertile without the addition of any substance whatever. What makes it worse is that the whole is italicised and thus is intended to attract additional notice. The author was evidently thinking of the system of allowing a soil to lie fallow for a season, and thus acquiring somewhat of its pristine vigor. Now, I would ask, why we allow our fields to lie fallow if it be not that the insoluble matters in the soil, become, by the atmospheric agents, soluble, and consequently ready to be appropriated by the plants? We know very well that we have three leading classes of soils, sandy, clay and calcareous, besides which there are the composite orders, made from the debris of certain genera of rocks, such as trap, gneiss, mica, granite, &c. We farthermore know, that these soils differ in constituents, there being in one an excess of iron; in another, of magnesia; in another, of potash, and that in some, the proportion of any one given substance is either entirely absent, or in such diminutive proportions as to be insufficient to supply vegetation, that until we add the missing constituents, however insignificant it may appear, we will have no crop, therefore, unless these conditions be complied with, Mr. B., or any one else may let his field remain fallow until all eternity, and he will get no return. Hence, I believe that when the Virginia farmer runs his plow five or six inches deeper than usual, and adds a few pounds of guano or phosphate, his miraculous crop is owing to the fact that he has brought new portions of the soil to be acted on by the air and moisture circulating beneath the surface of the soil, and that thus the nutrient matters already existing in his land are rendered in such a

condition as to be ready for immediate use. He is, in truth, plowing up his *second farm*, the one immeniately beneath the old one; but, after he has deepened his plowing year by year and removed crop after crop, without returning the animal excrement and other suitable fertilizers, he finds that even the virgin soil he commenced cultivating is becoming impoverished and finally, barren. Of course, we understand that this result will be deferred to a more or less distant date, in proportion to its original fertility.

After carrying us through the above seven assertions, our friend leaves us in the following deplorable fix:

"If the farmers of Virginia will discard all erroneous opinions with regard to the collection and application of manure, and rely solely upon the restoration to the soil of that natural provision of vegetable life, mould, that is manure made of the earth itself, caused by shade (!) I confidently predict that in a few years, &c., &c." Here is something which, if it were true, is of great weight, but unfortunately, it is not borne out by careful experiment. By "mould" we are led to understand the accumulation of organic materials from the decay of vegetation in the soil, and the soluble inorganic matters of the soil itself, but how this is to be brought about by shade, is not so clear. I have yet to learn that the formation of humus will take place more rapidly under cover; if that were so, we should erect on our fields immense sheds under which this desirable process might be accelerated. That the presence of the mineral matters in soil does not increase its fertility, is a theory which has not been refuted long enough to render it entirely obsolete, for as late as 1840, Dumas, obviously founding his belief on the experiments of De Lanssure, regarded their presence in plants as accidental; this opinion he urges in his "Statique chimique des êtres Organés," but Baron Liebig, convinced after most rigid experiments on perfectly barren soil, not only by himself, but by the Prince of Salm, Horstman, Wolf, Magnus and others, says: "No chemist, no vegetable physiologist, in short, no scientific man, who knows how to appreciate the logical value of facts, doubts the truth of this doctrine;" that is, that they are absolutely essential to plant growth.

And now, Mr. Editor, that we have compared the deductions of Mr. Baldwin with reason, and with the facts derived from men who have more knowledge on these subjects than either he or myself, I would take leave

f him in the most kindly spirit, hoping that he may extend his researches a little further and give us the benefit of his renewed experiments. Yours, respectfully,

HENRY S. OLCOTT.

New York, July, 1855.

For the Southern Planter.

MANAGEMENT OF HORSES.

ALBEMARLE, July 8th, 1855.

DEAR PLANTER: It has been a long time since I saw myself in print, (no very great loss to the agricultural interest you'll say) so if you'll give me a place I'll say a few words upon my management of horses. I suppose you, with your tide-water prejudices, are an advocate of *mules* for plantation use, and will meet everything I have to say in favor of the horse with the oft-repeated assertion that mules last less and live longer than horses. Now, I don't admit either end of this assertion. Both the mule and the horse, to do full labor, must be well fed, and as for dying, *my horses never die*, at least on *my hands*.

My plantation requires the labor of about seven horses, six for work and one for the saddle. I keep nine, eight mares and a stallion. These give me a regular team at all times, and the two extra horses enable me frequently to make a *push*. From these I raise about three colts a year. I sell off all my geldings, some at two and some at three years old. Of my mare colts I keep the best and sell off old mares, at from 8 to 10 years old, to make room for them. The mares bring as much at this age as at any other. In this way I constantly renew my stock and my horse account at the end of nine years farming stands:

Cost of original stock,	-	\$ 705
Stock sold and on hand,	-	2,781

Showing in 9 years a profit of \$2,076

Which, in my opinion, is better than keeping geldings or mules and having to renew your stock every 10 years. To my colts in raising, I pay no very particular attention, not as much as I ought; I graze them about eight months in the year and the other four feed them as I do my farm cattle, except in very bad weather, when I give a little corn, not two barrels a piece, certainly. I have consequently never raised high priced horses, and am, as you know, a poor hand to sell for a big price (witness a trade or two *you* had with me in times past), and yet I have always a full team and have realised a handsome profit from horse raising. The profit would be *very great*

to one who would bestow more attention than I do in raising colts and think less of *conscience* in selling them. I am no horse doctor, yet in nine years I have lost but one horse. For the numerous aches and pains that horse "flesh is heir to," I give *onion juice* and *whiskey*, (which, for *cholic* by-the-way is worth all the physic in an apothecary's shop) and, when I think of it, in the spring of the year mix onion juice with my horse feed once or twice, which conduces greatly to their health. I am a firm believer in the *blinding* influence of "wolf teeth" and pull them out whenever I find them; and I hold it to be a flogging offence to *knock* out a horse's eye. I have never had a horse to lose an eye from any cause. I flatter my waggoner into taking care of his horses; never say a word to him for *stealing* food for them, but would "mount him in a minute" for taking it *from* them. If I have a *mischeivous* horse, I sell rather than yoke him, and as for sore backs or rubbed shoulders, I had rather be caught with a hole in my boot or a patch on my breeches than have such a thing on my farm. I hold it to be cheaper to raise than buy horses; but if it were not, I should prefer raising to buying out of droves. These are generally of the refuse stock of the western country. Western men don't sell their best horses, and the chances are ten to one that a "drove horse" is sold for some fault or defect. Why should we not all raise our own horses? Yours, truly,  
IVY CREEK.

For the Southern Planter.

BROWNSBURG, ROCKBRIDGE, July 4, 1855.

MR. EDITOR: The harvest of the valley of Virginia is generally cut, but is mostly yet in the field in shock. The weather is now unfavorable to getting the wheat housed, and we may have our short crop still further reduced should the wet weather continue many days. The hot weather, with occasional showers, will cause the wheat to sprout, which always injures the quality of the flour. No injury is yet sustained. The past week has been showery, with occasionally heavy washing rains, and this morning threatens a settled rain.

The spring, and up to the 15th June, has been very dry and cold; having frost every month, up to that date. The grass crop is very short, also oats, but the late rains will cause the oat crop to head well. From the best information I can get, the wheat crop in Virginia will fall far below an average; in many places not half crops are made. In about one half our county there will be full

average crops, with wheat of the best quality, if we can get it safely housed.

Of the corn crop it is yet too early to say what it will be, the previous dry weather has enabled the farmers to get it in fine order and it is now growing luxuriantly. Heavy crops will be made, should July and August continue seasonable. The old crops of corn, wheat, rye, oats and buckwheat are almost entirely exhausted. I have hardly ever known the country as bare of grain as it is at present, yet there has been no actual suffering.

Flour has sold readily from the mills at \$10 for some months, corn 85c. to \$1, rye same price, oats 50 cents, buckwheat \$1 to \$1 25, gross beef about \$8, at home.

I have this spring laid down about four hundred yards of cement pipes, for the purpose of bringing to my kitchen door water from a favorite spring, and I now step out of my house into my spring house, where I have the purest water in abundance to answer all the purposes of my family, at a temperature of 60 deg.; at the spring the water stands at 54 deg. When my ditch shall become grassed over I expect to have the water at my door near 58 deg., which is about the usual temperature of springs. 60 deg. to 65 is said to be the best temperature for making good butter.

Mrs. Jones is delighted with my new spring house. I would not part with it for five times its cost. As some of your readers may wish to make a like improvement, and before doing so would count the cost, I will go a little into detail. I did much of the work within myself, but set down the building the spring house, 14½ by 20 feet, two and a half stories, at about \$100, of stone and frame; I have an office above the spring house and the half story is a room for drying fruit. Digging the ditch say \$10. Four hands, one week, laying down the cement pipes, with the cost of cement, \$100. The pipes are made on the ground, in a mould laid in the bottom of the ditch which mould is unclamped and removed as soon as the cement sets. Four hands can lay about one hundred yards per day. When there is no pressure the water may be put on immediately, in proportion to the pressure the work must stand until it goes through a sweat. The water, with me, had to rise 13 feet. The water was put into my pipes on the 5th day after the work was commenced to within a hundred yards of my house, where it has an outlet. The remaining hundred yards, which rises twelve feet, was ready to put on the water in fifteen days. The water pours into the spring house from a hydrant, entering

a large trough of cement and small stone plastered over with the cement. This trough is built against the end and one side of the spring house and the water ranges in depth from six to ten inches. In this trough we could set a hundred gallons of milk. There is a plug in the bottom to draw off the water that the trough may be kept clean. A cement pipe, ten inches above the bottom of the trough, empties the water outside of the spring house into a small cistern, 2½ feet deep, holding some six hundred gallons of water, where my little son has a few fish to amuse his idle hours. I design conveying this water through my yard into my orchard, where I shall have a pond for gathering ice.

The Messrs. J. B. & W. F. Poague, who have a patent for laying this pipe, are natives of Rockbridge county, and reside near the Natural Bridge. Post Office, Fancy Hill, (Fancy Hill.) The Messrs. Poage exhibited specimens of their pipe at the Virginia State Agricultural Fair last fall, and will, no doubt, be there again at the approaching Fair. They use several sizes of pipe, from one inch up. Mine is 1½ inch and cost 25 cents per yard, they finding the cement at the cement works, at the mouth of North River. Persons getting work done pay transportation from that point, or when they would furnish the cement, from any other quarter, and the work done by any other than Messrs. Poague's hands, a charge would be made for the patent only. Cement, at the works on James River, can be bought of Mr. Charles Locher at 20 to 22 cents per bushel, in bags. If barreled, it costs more. Cement weighs 70 lbs. per bushel. A good team, four horses, will haul 50 bushels; 25 bushels cement will lay one hundred yards 1½ inch pipe. One hundred bushels completed my job. The Messrs. Poague will probably, next year, compete for the premium for tubular draining tiles, made of cement; they have been experimenting on that subject.

Any good mason, who understands the use of the trowel, can mould and lay cement pipes. The only difficulty is in not letting the mortar set before it is used. The process is to mix one bushel, or less, half cement and half pure river sand. Let it be mixed speedily by two hands, in a trough made for the purpose, using light hoes; as soon as mixed it must be put in the mould; if the water is from a branch and the weather warm, it will set in twenty minutes; or less, if the water and weather is cold, it will sometimes be thirty five to thirty minutes.

I will now leave this subject and refer any

person who may want further information with regard to cement pipes, to the Messrs. Poague, whose post office is Fancy Hill, Rockbridge county, Virginia. I will add that they are gentlemen of high standing and may be relied on.

The promise of a fruit crop, this year, is fair, particularly with seedlings and native varieties of apples. Our best grafted varieties, about half crop, peaches abundant, nectarines, apricots, pears, cherries and smaller berries, a full supply.

The spring has been a bad one for setting out fruit trees, being too dry. Many young trees will perish if not well attended to.

My sheet is full. Your obedient servant,  
HENRY B. JONES.

For the Southern Planter.

COLD MOUNTAIN, July 10, 1855.

To the Editor of the Southern Planter.

Herewith I send \$3, which will take my subscription to the Planter up to the 1st of January, 1856.

I am 65 years of age, yet continue to take the Planter, although I now cultivate not one foot of earth; a small garden excepted.

I have never yet sent my money to any Agricultural paper without sending with it a treatise on some subject, and although old, will still try my hand.

#### GRASSES AND GRAZING.

I have nearly every kind of grass grown in Virginia, and for many years have made a support by raising cattle and sheep.

Every grazier is bound to have grass; the farmer and planter ought to have it. The quickest way to improve land is by ploughing down successive crops of oats, rye or peas; but the cheapest way is to plough down the perennial grasses, after they have stood three or four years untouched by the reaper or tooth. The kind of grass to be sown should be adapted to the locality; for altho' nature may be coaxed a little, yet she cannot be whipped or spurred out of the track which the Creator has chalked out. It is true that Indian corn may be grown either in the torrid or in the temperate zones, but let it be remembered that although a northern corn can be grown in a southern climate, a southern corn cannot grow in a northern climate. If a northern corn be transplanted in the south, it will in a few years become a southern corn; take the same corn directly back to its original place, and the frost takes it; but move the annual produce only a few miles towards its original home, and when there all is right again—it is what it originally was. The same cannot be said of the grasses; or so far as my experience and information go, they are all now what they ever were.

Some of our grasses are annuals, some are perennials, some are natural, others foreign or artificial.

Of the annual grasses, I say nothing, because they are worthless when compared to the perennials.

Of all the natural grasses, we have in Virginia, the green sward, the white clover and the Virginia

blue grass; all of which are superior for grazing purposes, especially for sheep. The green sward and white clover will generally be found growing together, and on rich land may be cut for hay twice in the year; but because of their difficulty of curing, better for this purpose have some other. The natural place for green sward and white clover is on cool, moist land, containing potash in abundance, as well as a due portion of lime and gypsum. If the potash is wanting it must be supplied either in the manufactured article or in the ashes. Only sow the ashes and the green sward will soon show itself without sowing; without the ash or ashes you have no green sward. My mountain home contains, perhaps a superabundance of potash, produced by the decomposition of the felspar and green stone rocks; and ashes from the burnings of woods and weeds; and here I have these grasses in perfection.

About thirty years past the blue grass was growing all over Amherst and had exclusive possession of the larger mountains; but now the green sward has taken its place; nature has ordered a change, and I am glad of it, for the green is now far preferable to the blue. But I have no doubt that in time to come, perhaps hundreds or thousands of years, this same blue grass seed will be called forth by nature; and then it will not be the dwarf seen here in my day, but a superior plant. Altho' aware of the difficulty of performing the task, I will attempt to speak of the adaptation of the different grasses to the different soils and locations:

On poor land, dry, sow herds grass and ribbed plaitain.

On poor land, moist, herds grass.

On poor land, wet stagnant, herds grass.

On poor land, wet slope, herds grass.

On rich land, dry, we have none.

On rich land, moist, if warm location, sow meadow oats, Italian ray and Kentucky blue. If cold location, sow timothy, orchard.

On rich land, wet slope, if warm location, sow velvet, ribbon, Kentucky blue, herds. If cold, timothy.

On rich land, wet stagnant, herds.

On sand, cold location, something may grow.

On sand, warm location, nothing unless irrigated.

By cold land, I mean our mountainous and northern slopes, including the valleys beyond the Blue Ridge. By warm land, I mean all other locations in our State. In Virginia, thousands of cattle die annually during winter for want of food; particularly eastward from the Blue Ridge. Better kill one half for the dogs and buzzards, to ensure the life of those remaining, and have them in good condition in spring; or better still, drive the surplus across the Blue Ridge and sell them. Better be without cattle than sustain such loss by their deaths from poverty; aye and take into the account too, the death of the land, caused by the eternal treading and gnawing of the cattle to get the remains of a weed. If I were the owner of poor land, I would certainly not let a hoof go on it. A cow or two and my horses, should be kept in a house or pound, and fed on corn, millet, clover, &c. during the grass season. I would not sell my surplus winter cow food, but spread it neatly over my poorest lands, after which, I would call that spot no longer by any ugly name, such as poor, bony, sterile, miserable, barren, galled, dry, worthless, sickly, dead. It seems to be the general opinion

that the offal of the farm should be trodden by cattle into a muck, before it is a proper manure; but my experience and indeed, reason, teaches me that this is a great mistake. 'Tis true that the cows feet do not destroy or injure the salts or oils in the vegetable matter, but the rains and evaporations do. And not only this, but another heavier loss is sustained by the practice above alluded to, that is, the lifting, carting, and spreading three times as much water as manure. I have been an experimental farmer, and now say, the owner of land, particularly that which is poor, had better have no cattle than be compelled to feed to them his corn stalks and straw. The renter is a privileged character; he can do as he pleases; he spreads no manure, of course. Put your corn stalks on the most convenient galls and gullies; and your straw in spring, neat and clean, on wheat, rye, or oat fields; only remember not to put oat straw on wheat or rye. Or if from sickness or other cause, you cannot complete this job in due time, then scatter your remaining straw amongst your growing corn, immediately following the last ploughing. This manner of manuring will force a good ear on a small stalk—in part, attributable to the retention of moisture. Straw used in this way will produce more profit than double its original value: then why not clear out the cattle, for one year at least, and then you have annually the overplus grains, shucks and corn blades as their better food. Much better live poor and go ragged a few years until your lands are improved, than go starving all your life.

Let not the man who has numbers of poor acres and poor slaves, think that he is excluded in the above remarks. Who are the rich? he who has the bone, the sinew and mind, ready all to go right ahead with his business. Who are the poor? he who will not adapt his mind to his occupation; and the consequences—ah! oh!

The velvet grass is of pale green color, grows from two to three feet high, long boot and short blade, both velvet like; seed much like the ribbon grass only more chaffy and light. It grows more luxuriant in soft, running water, therefore, I would recommend it for all slopes which can be irrigated at pleasure by soft or warm water. This and the ribbon grass are the only grasses which will bear warm water, in my knowledge, and it is only necessary to take the water from these just for the time for cutting and curing the hay.

The ribbon grass grows from two to three feet high, and is easily distinguished from any other, by the blades having all manner of white stripes. It blossoms profusely, but I have never known it to bear a seed. It propagates rapidly from the roots.

The oat grass grows from three to five feet high, may be cut for hay three times in the year; no stock is fond of it either green or cured, yet as it puts up early and continues late, it is valuable.

I send a head of Virginia blue grass, long; a head of Kentucky blue grass, short; ribbon grass, shorter; velvet grass, shortest; three blades of ribbon, one blade velvet, and a leaf of the wild pea—all dwarfs, for convenience.

ZA DRUMMOND.

Amherst, July 10, 1855.

#### THE CHINCH BUG AND THE CORN CROP.

From all we can gather, the Chinch Bug is more numerous the present year than it has been since 1822-'23, and the cry of its desolation comes up from all parts of the country.—*Fred. Herald.*

For the Southern Planter.

POWHATAN, July 8th, 1855.

*Mr. Editor.* Some years since, Judge G. W. Hopkins presented me with about a table spoonful of winter oats, obtained from the Patent Office, at Washington, and said to have been imported from Germany. I sowed them in my garden, and continued for two or three years to sow all that were made. Two or three of my neighbors had of me a few bushels, and, through their agency rather than my own, these oats have acquired a considerable degree of reputation for superiority over the common oats. Last winter was, probably, as unfavorable to their production of a large crop as any within the recollection of any person living. I have heard of several persons, who sowed them, at a late period in autumn, who had them not sufficiently thick. This would, probably have been the case with wheat. Chiefly with the view of being enabled to answer with confidence the enquiries likely to be made at the period most favorable for sowing them, I had some sown about the middle of November, some in the middle of December and some in the middle of January. Those sown in December and January were, by the frosts of winter, rendered decidedly thinner than they should have been; those sown in November were slightly affected by the same cause. Either of these crops, however, was superior to what could have been realized from spring sowing with common oats; that from the land sown in November, especially. Again: a piece of very poor land on which winter oats grew last season (1854) was fallowed from the fifteenth to the thirtieth of August, with the design to save the seed which the land would otherwise have required. This experiment was spoiled by the hogs having been too long allowed to remain on the land and glean the seed too closely. The crop was not sufficiently thick, and, I am convinced, from this cause alone,—I have, however, no hesitation in believing that it was thrice as large as it could have been, in this unfavorable season, had the land been sown in spring with the common oats. The oats were very generally three feet high and the branches very luxuriant. In the course of last winter and spring, I repeatedly walked through this crop and have not been enabled, by my observations, to determine that a single bunch had perished. This land is very poor and has never received a manuring by guano or other material.

From all the experience I have had in the cultivation of this species of oats I have no hesitation in recommending the sowing of them from middle of August to middle of September, as the very best period. When sown at this period, the farmer may confidently anticipate a crop, from poor land, at least twice or thrice as large as could be reaped from spring sowing with the common oats. The later the period of sowing, after that here mentioned, the smaller will probably be the product; that however, may, in a considerable degree depend on the early or late advent of severe frosts. I, as well as other persons, who have made the experiment, believe that these oats are superior to the common, when sown at an early period of the spring, and that they will, probably, supplant all others. Sown immediately adjacent to others they will be found to exceed them, by several inches, in height. I shall conclude with the expression of the hope that these suggestions may be of advantage to some one. Most respectfully yours, &c.,

ABNER CRUMP, M. D.

**RICHMOND MARKETS, JULY 28, 1855.**

APPLES—Va. \$5 per bbl. none in market.  
 BACON—City cured, none in market; Western Sides newly held at 11c, new Shoulders, 10a10½c, Hams, 12½a15, Smithfield hog round, 12½c. Queen City Hams, 13½.  
 BUTTER—Mountain 2½ to 25 cts., Goshen 23a25 cts., old and inferior, 5a10½ cts.  
 BEESWAX—25½a26½ per lb.  
 COTTON—11½ cts. per lb.  
 COTTON YARNS—17a18 cts., cash. Cotton Cordage 20 cts., per lb.  
 CORN—We quote 105a110 cts., per bushel.  
 CORN MEAL—\$1 30a1 35.  
 COFFEE—Rio 10½a11½ cts, Laguyra 11½ cts, Java 15, Mocha 15½c.  
 FLOUR—We quote country superfine at \$10½a11 extra \$11½, family \$12a12½. Stock very light and very little arriving.  
 FLAXSEED—We quote at \$1 60a1 65 per bushel.  
 FEATHERS—Live geese 40 cts. per lb.  
 FISH—Herrings, N. C, cut, \$7 a 7 25; Halifax, dipped, No. 1, \$5 50; No. 2, \$5. Shad—Last sales \$9; Mackerel, No. 1, \$21 per bbl, No. 2, \$12 50, No. 3, small, \$4 50a5, No. 4, \$4 50a5, medium 5 50a6, large 9 25 9 50.  
 GINSENG—25 cts. per lb.  
 GRASS SEEDS—Clover \$8 per bushel, Timothy 5a4 25, Herds' Grass \$1 25a1 50 per bushel.  
 GUANO—We quote \$52 from wharf, \$52 50 delivered, or Peruvian, Mexican Guano \$30a\$35.  
 GUNPOWDER—Dupont's and Hazard's Sporting, F, FF, and FFF, \$4½, Blasting, \$2,75a\$3 per keg.  
 HOOP POLES—We quote at \$7 per thousand.  
 HIDES—Slaughtered 6½ cents per lb., green weight; calf skins, green, \$1. No Spanish Hides in market.  
 HAY—Sales from store \$1 50.  
 IRON AND NAILS—Pig Iron, \$32a\$40. Swedes \$107 50, English refined and Tredegar \$95, Common English \$80, American country \$85. Cut Nails 4a4½c.  
 LIQUORS—Brandy, Ouard, Dupuy & Co. \$3a5 per gal.; A. Seignette, \$2 25a\$4; Sazerac, \$3 25a \$4 50; Hennessy, \$3 95a\$5; Peach, scarce at \$1 25a\$2; Virginia Apple, 60c. \$5c; do. old, 75c.a\$1 50; Northern do, 55a75c.; Imitation, 55a7½c. Rum, New England, 45c. Gin, Holland, \$1,20a \$1 75; American 45 cts.  
 LEAD—Pig 6½a7½c., cash and time.  
 LARD—Prime Lard, in bbls. 12c., scarce, in kegs, 12a13½, in pails, 14c.  
 LEATHER—Good stamp 20a22c., per lb., damaged 18c., poor 15a17c., upper leather \$1 50a\$3, as in size, weight and quality, the latter price only for superior heavy sides. Skirting and harness Leather is more plenty with less demand. We quote 20 to 29c., as extremes, principally sales 22a26c.  
 LIME—\$1 27 in store, \$1 31½ from vessel.  
 MOLASSES—New Orleans 32a35c. per gallon. Cuba, 2c. Porto Rico, 35.  
 OATS—Stock very light—sales at 55a60cts. per bush.  
 OFFAL—Bran, 25c. per bushel; shorts, 32½c; brown stuff, 45c. shipstuff, 75c.  
 POTATOES—No demand for old and nothing doing.  
 PLASTER—Ground \$9 per ton, calcined \$2 50 per bbl.  
 RYE—\$1 15 per bushel.  
 RICE—New 7½ cts. per pound.  
 SALT—Liverpool fine \$1 60 per sack from wharf.  
 SUGARS—Fair to strictly prime New Orleans 5½a7 cts., Coffee Sugar 7½a8½, refined loaf 10½a10½, crushed and powdered 9½a9½c.  
 SHOT—7½a7½ cts. per lb.  
 TEAS—Imperial and Gunpowder 55c.a\$1 20.  
 TOBACCO—The breaks of Tobacco are very much crowded at this time and receipts large. We quote inferior lugs at \$5a5 25; good and fine, \$5 75a6 25; inferior leaf, \$7a 8; good, \$8 50a9 50; fine shipping, \$12 50a14 50; fine manufacturing, \$15a18.  
 WHEAT.—The Wheat market is animated with an increase of receipts. The Northern markets have all declined considerably in the past week; but in this city a temporary decline of five cents only took place, which has been recovered, and we now quote \$2 for prime red,

\$2,05 for prime white, cash Our millers are anxious to get stocks to keep their mills in operation, and hence the market is likely to range high compared with other markets, for some time.  
 WINES—Port, Burgundy, \$1a2,50, Port Juice \$2,50a 4, Madeira, Sicily, 45a\$1,75, old Madeira, \$2,50a4, Sherry, Permartin, Duff Gordon and Amontilado, \$2a6,50.  
 WOOD—Oak \$3 50 per cord, \$2a2 25 for Pine, retail \$1 50 for Oak, \$3a3 25 for Pine.  
 WOOL—Small parcels of tub-washed sold at 27c; Unwashed 18a19c. No sales of firm fleece made as yet.  
 BEEF—\$3,50,a4,50, per cwt. gross, which is \$7a5 net; HOGS—\$8 per hundred, supply moderate.  
 SHEEP—Muttonsells for \$2 50a5 a piece for ordinary and superior Sheep Lambs \$2 a 3 50 each.  
 STOCKS.—Virginia 6 per cents, 34 years to run, last sales at the Treasury, \$100; Virginia 6 per cents, 25 years time, sales at \$99 and int.; Coupon Bonds of Virginia, \$99 and int.; Bonds guaranteed by the State, last sales at \$95 and int.; Richmond City Bonds, 34 years to run, sales at 93 and int.; Virginia Bank Stock, par \$70, sales \$73; Farmers' Bank Stock, sales at 104½ dol.; Exchange Bank Stock, 105; Richmond, Fredericksburg and Potomac Railroad Stock, 95 dol.; Virginia Central Railroad Stock, 42 dol.; Richmond and Petersburg Railroad Stock, 50 dol., Richmond and Danville Railroad Stock, 50 dol.; James River and Kanawha Stock, 13½ dol.

**PAYMENTS TO THE SOUTHERN PLANTER,**

*To the 27th of July, 1855.*

C. B. De Burg to July 1856	1 00
Dr. W. H. Goode to January 1856	1 00
Dr. R. Henderson to January 1857	2 00
Jesse Adkinson to September 1855	1 00
J. R. Watkins to September 1855	2 25
Thos. D. Quarles to January 1856	7 00
V. M. Eppes to January 1856	1 00
Dr. P. E. Lett to September 1855	1 00
Dr. H. L. Jeffries to January 1856	1 00
J. A. Beame to July 1856	2 25
W. H. Davis to January 1856	1 00
R. Boyd to September 1855	2 00
Howell Chastain to January 1857	2 00
Jno. Sturdivant to January 1856	1 00
Wm. Malone to July 1856	1 00
Thos. L. Preston to July 1856	2 00
T. H. Eppes to January 1857	2 00
A. S. Jones to January 1856	1 00
Capt. W. E. Britton to January 1856	2 00
A. S. Barksdale to July 1856	1 00
L. Edmonds to January 1857	2 00
Jno. R. Edmonds to July 1856	3 00
Jno. Currie, Sr., to May 1856	1 00
Maj. J. Paxton to May 1856	1 00
A. H. Jones to October 1856	3 00
Jas. D. Morrison to June 1856	1 00
L. Shirley to July 1855	1 00
A. P. Hill to June 1855	1 00
Dr. E. L. Nelson to August 1856	1 00
C. Hardie to July 1856	2 00
W. C. Bell to January 1856	1 00
J. J. Bowman to July 1856	5 00
Gen. A Brown to January 1856	2 00
B. T. Teel to January 1856	4 75
Andrew White to January 1856	1 00
Warner Wood to January 1856	3 50
Dr. A. Michie to July 1856	3 50
O. G. Michie to October 1856	2 25
Jos. Turner to January 1856	1 00
Capt. J. Lindsay to January 1856	1 00
Ro. King to January 1855	1 00
J. G. Taurinan to September 1856	2 00
L. H. Minor to September 1856	2 00
Junius B. Brown to January 1856	1 00
Wm. Payne, Sr., to January 1856	1 00

Col. J. R. Watson to July 1855	3 00	Dr. T. H. Venable to January 1856	3 00
M. C. Tunstall to January 1857	2 00	W. Boshier to January 1856	3 00
T. H. Perkins to January 1856	2 00	Dr. W. Meredith to July 1856	1 00
Maj J. Brooks to January 1856	} CLUB	Jas. Henshaw to July 1857	4 00
J. C. Wilson to January 1856		J. B. Strong to January 1856	1 00
S. Wilson to January 1856		Judge Thos. Ruffin to January 1857	2 00
L. Johnson to January 1856		Win. T. Wooten to January 1856	1 00
R. Snapp to July 1856		George Hocker to January 1856	1 00
E. J. Bates to December 1855		Ro. Hill to January 1856	1 00
A. H. Moorman to January 1856		Carter H. Page to July 1856	1 00
V. O. Witcher to January 1856		B. Randolph to January 1856	1 00
R. M. Calloway to January 1856		G. S. Blakey to July 1856	1 00
Jno. M. Patton to January 1856		W. B. & D. B. Hyde to July 1856	1 00
S. C. Jones to January 1856	J. McAllister to January 1856	1 00	
T. B. Jefferson to January 1856	O. P. Jones per Richardson & Co.	3 00	
D. J. P. Scanland to July 1856			
J. G. Jefferson to January 1856	1 00		
W. A. Taliaferro to July 1856	3 00		
S. S. Gresham to March 1856	1 00		
W. Callis to January 1856	1 00		
D. Simmons to January 1856	1 00		
R. F. Gaines to January 1856	1 00		
L. Drummond to January 1856	3 00		
Geo. P. Fitchett to January 1856	2 00		
Jas. Twitty to January 1856	1 00		
Captain N. N. Witcher to July 1856	1 00		
R. A. Kidd to January 1856	1 00		
Gov. W. A. Dillard to January 1857	5 00		
E. Emory to July 1856	1 00		
Col. T. F. Wingfield to January 1856	1 00		
M. B. Carrington to January 1856	1 00		
J. T. Pope to July 1855	1 25		
J. C. Hart to January 1856	2 00		
R. B. Spratley to January 1857	2 00		
Geo. Rigler to July 1855	2 00		
Col. R. W. Baylor to September 1856	1 00		
W. M. Shepherd to September 1855	1 00		
R. W. Brooking to January 1856	1 00		
M. T. Googh, collections Louisa, names not yet returned,	70 00		

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SCHOOL FOR BOYS.

THE second session of my school will begin the 1st October next and terminate the first of August following. I desire to get as boarders in my family, two boys, about twelve years old. The school is a small one, intended for the education of my own children, and the course of instruction such as will fit them for the University of Virginia.

TERMS—Two hundred dollars for the whole session; payable, one half the 1st. October, the other half the first of March.

FRANK: G. RUFFIN,  
Summer Hill, Chesterfield,  
4 miles below Richmond.

au

RIDGEWAY SCHOOL.

THE next session of my School will begin on the first Monday in September and end on the last Friday of June, 1856. There will be a vacation of two weeks at Christmas. I charge \$220 for a whole session, or \$25 a month for any period less than a whole session. I furnish my pupils board, lodging, light, fuel, washing, and all else necessary to comfort, and make no extra charges for anything. I have three assistant teachers and am prepared to give instruction in every branch of education proper to fit boys to enter the University of Virginia. For further particulars apply to me at Charlottesville, Va.

au—f

FRANKLIN MINOR.

- D. M. Justice to July 1856
- T. B. Dyson to July 1856
- A. A. Campbell to July 1856
- D. H. Hardaway to July 1855
- B. W. Fitzgerrald to July 1856
- R. S. Hurt to November 1856
- J. J. Hudson to July 1856
- G. N. Seay to January 1856
- T. K. Bridgeforth to May 1856
- G. A. Cralle to January 1856
- W. Irby to July 1856
- J. M. Hurt to January 1856
- G. W. Sydnor to January 1856
- Samuel Scott to January 1856
- S. H. Pettus to January 1856
- E. G. Booth to January 1856
- E. S. Farley to January 1855
- W. J. Harris to January 1856
- F. Eppes to January 1856
- T. R. Bland to September 1856
- R. E. Shore to July 1856
- G. C. Bland to July 1856
- Thos. P. Bland to July 1856
- A. H. Reames to July 1855
- E. F. Williamson to January 1856
- J. G. Powell to July 1856
- R. M. Neblett to January 1856
- Col. J. H. Knight to January 1856
- L. H. Knight to July 1856
- R. Beverly to January 1856
- J. R. Leath to January 1856

Per W. A. ROBERTSON, Notaway.