

THE SOUTHERN PLANTER;

Devoted 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.*

C. T. BOTTS & L. M. BURFOOT, Editors.

VOL. III.

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No. 6.

RULES FOR BREEDING.

Although there is a great discrepancy of opinion upon some portions of the mysterious art of breeding, the following precepts, from the pen of one of the most distinguished anatomists in Europe, Professor CLINE, are, we believe, universally received as established doctrines amongst those who have the best right to know; although dame nature sometimes amuses herself in setting at naught the most ingenious theories of philosophers.

When the professor objects to large bones he must not be misunderstood. From the bone and muscle strength is derived, and, we presume, the greater the *quantity* of either, the greater will be the strength of the animal: but the quantity is not always to be measured by *size*; indeed, as Mr. Cline remarks, they are generally found in an inverse ratio. In some animals a much greater quantity, both of muscle and bone, is condensed into a much smaller space than in others, and this constitutes the great physical difference between the Arabian and their descendants, commonly styled "blooded horses," and those of other descriptions. The ivory of the blooded-horse will always *outweigh*, though it will never *outmeasure*, the open, porous bone of the cart-horse. But where the density of fibre is equal, size will indicate quantity, and therefore, strength. With equal quality of bone and muscle then, the largest animal will always be the most powerful. With this commentary, we give to our readers the Professor's opinions upon the following subjects:

"Muscles.—The muscles and tendons, which are their appendages, should be large; by which an animal is enabled to travel with greater facility.

"The Bones.—The strength of an animal does not depend on the size of the bones, but on that of the muscles. Many animals with large bones are weak, their muscles being small.—Animals that were imperfectly nourished during growth, have their bones disproportionably large. If such deficiency of nourishment originated

from a constitutional defect, which is the most frequent cause, they remain weak during life. Large bones, therefore, generally indicate an imperfection in the organs of nutrition.

"On the Improvement of the Form.—When the male is much larger than the female, the offspring is generally of an imperfect form. If the female be proportionably larger, the offspring is of an improved form. For instance, if a well-formed large ram be put to ewes proportionably smaller, the lambs will not be so well shaped as their parents; but if a small ram be put to larger ewes, the lambs will be of an improved form.

"The proper method of improving the form of animals consists in selecting a well-formed female, proportionably larger than the male.—The improvement depends on this principle: that the power of the female to supply her offspring with nourishment is in proportion to her size, and to the power of nourishing herself from the excellence of her own constitution.

"The size of the fœtus is generally in proportion to that of the male parent, and therefore when the female parent is disproportionably small, the quantity of nourishment is deficient, and her offspring has all the disproportions of a starveling. But when the female, from her size and good constitution, is more than adequate to the nourishment of a fœtus of a smaller male than herself, the growth must be proportionably greater. The large female has also a greater quantity of milk, and her offspring is more than abundantly supplied with nourishment after birth.

"To produce the most perfect-formed animal, abundant nourishment is necessary from the earliest period of its existence until its growth is complete.

"The power to prepare the greatest quantity of nourishment from a given quantity of food, depends principally upon the magnitude of the lungs, to which the organs of digestion are subservient.

"To obtain animals with large lungs, crossing is the most expeditious method, because well-formed females may be selected from a variety of large size to be put to a well-formed male of a variety that is rather smaller.

"Examples of the Good Effects of Crossing the Breeds.—The great improvement of the breed of horses in England arose from crossing with those diminutive stallions, Barbs and Arabians; and the introduction of Flanders mares into this

country was the source of improvement in the breed of cart-horses.

“Examples of the Bad Effects of Crossing the Breed.—When it became the fashion in London to drive large bay horses, the farmers in Yorkshire put their mares to much larger stallions than usual, and thus did infinite mischief to their breed, by producing a race of small-chested, long-legged, large-boned, worthless animals.”

QUACKERY.

We hail with pleasure and gratitude any intelligent and scientific communication upon the subject of diseases in the horse. This noble animal has too long been surrendered to the tender mercies of the ignorant and designing. In the human frame, science and learning are prepared to contest, if not to conquer, the pretensions of quackery, even in the present day of humbug. But dominion over the lower animals is surrendered to the pretensions of ignorance almost without a struggle. It is even ludicrous to observe the process to which a sick horse is frequently subjected. The owner generally commences by poking and thrusting a variety of compounds down his throat, one after another, at random, because he is sure he has heard either that, or something like it, recommended for something, and then, if he fails to strangle or kill him, he sends for the “horse doctor,” who, with equal ignorance and a great deal more pretension, subjects the poor brute to a similar course of treatment. The sagacity of the animal is sometimes greater than that of his master, and we knew an old horse once, who had been so long subjected to this kind of treatment that he would, instinctively, recognize and shy from a *horse doctor* whenever he met him.

Defects of the eye are very common, and we recommend the following extract, particularly, to the notice of our readers:

“Cure for Inflamed Eyes of the Horse.—Notwithstanding my occupation requires my attention and exertions in attempting to cure or palliate the “ills that flesh is heir to” in the human species, my sympathies have been occasionally enlisted in behalf of that noble animal upon which we are so much dependant for many of our pleasures and comforts, and derive so much important service—the horse, in consequence of the empyric and barbarous treatment frequently practised upon him.

“If the animal who claims for himself the image of his Maker, is willing to indulge in

Brandreth’s Pills, Lobelia, Magnetic Ether, and Jew David’s Plaster, and write for his epitaph, ‘I was well, took physic and died,’ let his curiosity be gratified; but while we assume to ourselves the guardianship of the fourfooted part of creation, let us discharge the duty in that manner that shall at least entitle us to the virtue of humanity.

“Not unfrequently when I have been giving my horses high feed and severe service in hot weather, over hard and dusty roads, I have observed them frightened and shy from objects to which they usually paid little or no attention; and upon examination of the eyes, have discovered the external membrane (*tunica conjunctiva*) thickened so much as to impair or obstruct the vision, presenting a whitish appearance occasionally in spots, but frequently involving the entire membrane covering the organ. At this discovery many kind friends, actuated by the best of motives, would volunteer their aid and advice, for the purpose of removing the difficulty. Mr. A., exhibiting an air of great confidence in his skill in such matters, would say, ‘You must pound glass until it is very fine, and blow it into the eye through a quill, to *cut the scum.*’ A remedy, or rather an intended remedy, that would most assuredly render him blind, even though the disease should fail to accomplish that result. Then comes Mr. B.: ‘Sir, you must blow burnt alum in that eye.’ Mr. C., quite as knowing as his neighbors in these affairs, makes the following prescription: ‘Blow powdered blue stone into it, and rub a little rabbit’s grease above the eye, and my word for it, to-morrow morning it will be as bright as a diamond.’

“By just such treatment many a noble roadster has been prematurely consigned to the cart or tread-mill; whereas, had the matter been entrusted solely to the operations of Dame Nature, the result would have been widely different.

“The course that I invariably pursue in such instances, is to keep the animal in a dark stable, to be fed upon hay, or if practicable, fresh cut grass and coarse bran—bleed freely from the mouth, and administer one and a half pounds of Glauber salts, two drachms of niure, and fifteen grains of tartarized antimony in a bucket of water, and repeat the same daily until free purgative operation is produced. The animal will be invariably found in a feverish condition, and if kept from water for a short time will drink the mixture freely. If these means do not soon produce a salutary impression, I bleed from the large vein immediately below the eye. By placing the thumb of the left hand firmly upon the part, the vessel soon becomes distended, and the operation may be most conveniently performed with a common spring-lancet. By this means I have frequently succeeded in extracting from twelve to twenty ounces of blood, which has acted like a charm, by relieving the en-

gorged vessels of the inflamed membrane. The whitish or sometimes yellowish appearance, depends upon the effusion of coagulated lymph deposited during the acute stage of the disease. When the absorption of this does not progress freely, and the eye fails to assume its accustomed lustre and transparency, I blister a semicircle below the eye, one and a half inches in diameter, by applying daily with the point of the finger, a mixture of three parts of the common blistering preparation as obtained from the druggists, and one part Venice turpentine. Sometimes the other membranes of the organ become diseased from similar causes, to remedy which, the foregoing treatment as detailed will be applicable. Care should be observed in not too suddenly exposing the patient to a strong light, high food, or active service.

"Thus I have given you, as our Buckeyes term the science, a chapter on 'horse-doctoring,' and if you perceive any thing in it that will repay you for the trouble, you are at liberty to publish it, with the promise, if it meets your approbation, of resuming the subject in some future number.

ANDREW CAMPBELL, M. D.
Middletown, Ohio, February, 1843."
American Agriculturist.

For the Southern Planter.

Wood Lawn Farm, Orange, May 4, 1843.

Messrs. Editors,—There is not a more palpable truism in all the pages of the Southern Planter, than the following sentiment given in your April number from a western paper: "After the imagination is completely exhausted in eulogizing the various products of mother earth, there is nothing to be compared to the old-fashioned blue grass for permanent pasture." Now, gentleman, as you have hoisted this flag, permit a recent and humble patron to urge upon you to nail it for a season to your editorial mast-head, for if we can get this invaluable grass to take permanent hold upon our soil, it will be worth more to the agricultural interest of our division of the Commonwealth, than all the theories of agricultural chemistry, from professor "Liebig," and the essays from Loudoun's encyclopædia put together. If we can get such a friend to stick with us, either upon the virgin soil of our protected forest when freed from its unprofitable undergrowth, or upon our river bottoms, the tide of emigration would soon cease to set its face to the setting sun. It is worth the trial—then to give you an earnest of the willingness with which I will commence a little experiment upon a tributary of the York, I will become (if you can procure it) a purchaser of a half bushel *clean seed* if they are "sound and fresh, provided it can be gotten under \$10 a bushel, by the

first of next January. I am emboldened to make this experiment from the luxuriant turf of it I find about my garden walks, as well as other uncultivated spots about my farm.

I agree with you, that the great defect in our farming system "consists in *too much tillage*, and *too little pasturage*." Then, gentlemen, fly the blue grass flag, and get others to try its culture too.

Respectfully your obedient servant,

P. SCALES.

We think we have done the State some service if we have been the means of inducing even one gentleman to make a fair experiment with this valuable grass. We will do our best to obtain the seed for Mr. Scales, and hope to procure it for much less than ten dollars a bushel.

ENGLISH AGRICULTURE.

Whatever opinion we may form of Britain, her pride, arrogance, insolence, presumption, vanity—faults, too, that will have to be amended within ten years by the compulsory process of a general alliance of nations against her—yet we must all confess that her agriculture is the most stupendous thing under heaven! When it is remembered that the crop of turnips grown in Norfolk alone is greater than the value of her trade with China; that the market price of geese brought from the Lincolnshire fens is more than her trade with Denmark; that you shall see, as a common thing, a hundred acres of turnips, or a hundred acres of beans, or thirty acres of cabbage in a single field—a farm of three hundred acres all mown, or a farm of the same size, (three hundred acres) all in crops—the live stock on a single farm worth \$50,000—twenty horses employed on one farm every working day in the year, and by means of thrice ploughing, (heavy clays,) turning nine hundred acres in a single year—I say, when this is remembered, it will be seen that "great" as Britain is in every thing, the superlative degree of greatness is in her agriculture—in her soil, naturally poor, but made rich by the application of capital and unwearied assiduity, good sense and enterprise. While in this country we fail most from the want of capital, and from the circumstance that agriculture does not rank as an employment with others (especially with trade it is not valued) as it ought to be. The English contend that it was never so valued in a democratic country; agriculture being, in their estimation, substantially an aristocratic employment; and it must be confessed that this is true of England. To be wanting in the dignity conferred by landed possessions, is to want that which conducts to the highest offices and the most exclusive society. The term country gen-

tleman, is in England almost an actual patent of precedence; and so far do they carry this, that no man in trade can marry into a family of landed descent and possessions, unless he add to wealth an eminent character for talent.

Farmers' Monthly Visitor.

There is nothing in a democratic government that deters from the pursuit of agriculture.— There is no portion of the earth more zealously devoted to our democratic institutions than the people of Virginia, yet are they strictly an agricultural population. In truth, wherever nature has granted a favorable climate and soil, such are the innumerable advantages of this delightful occupation, that it must enlist amongst its votaries the great mass of mankind. Those, whose means induce them to look rather for enjoyment than accumulation, will always seek the noble pleasures of a country life; and he who wishes to engage in agriculture where it is sanctioned by the example of the aristocracy of wealth and learning, need not go to England to seek it. He will find it throughout the whole southern country. The farmers compose the aristocracy of Virginia, certainly; they know and feel it; you can see it in the slow and solemn gravity with which they pace our streets, when business brings them to the city; they look down upon the hurrying cit, as they meet him on the side walk, with ineffable contempt; they know that he is the patient drudge who labors in their service; whilst they, the lords of the land, revel in the luxury and ease that their more favorable occupation secures them. We know nothing here of that which is so often complained of to the North, the unjust degradation in which agriculture is held. The name of *Planter*, at the South, is almost equal to a patent of nobility, and the occupation, in point of dignity and importance, has nothing to fear, with us, from the sneers of the most haughty.

POULTRY BETTER THAN PORK OR BEEF.

In this age of improvement in the production of animal and vegetable food, if there is any good reason why all the science, skill and enterprise of agriculturists, editors, chemists and philosophers, should be applied to the melioration and refinement of one or two classes of animals, to the exclusion of others as good by nature as they are, we should like to know it. The hog and the bullock, dubbed with the English titles of Berkshire, and Durham, seem to walk over the land with a sort of John Bull swagger, that

has commanded all attention, and left all their brute brethren in their uncultured native deformity; while those foreign *titled* gentry have, in the eyes of some, become absolute perfectionists. Now, in the language of our declaration of rights, "we hold these truths to be self-evident, that (by their constitution) they are all created equal."

We are aware that the noble Berkshires, by their elaine and stearine, have kindled up a great light in the West, (which we hope may dispel the black cloud of repudiation that hovers over that region,) and are about to monopolize all the care and labor of the farmers thereabouts; but we can see no reason why the delicate, feathered race should thereby be debarred from sharing in the benefits and perfectionisms of cross breeding, in-and-in breeding, and all other scientific advancements in the world. The noble and ancient family of Chanticleer, whose clarion note has been the world's time-piece, ever since Peter denied his Master, and has never failed to sound the approach of every rising sun; the bird that saved Old Rome from conflagration by her warning voice in the dead of night,—shall these lose their old established rank, and give place in man's affections to "*herds of swine*," and the sturdy Bulls of Bashan? What are all *their* uncouth grunts and frightful bellowings about the farmer's cottage, compared with the music of the cheerful chirping, chatting, cackling, crowing, gobbling, quacking, squeaking, squalling, with which his poultry-yard resounds from day to day?

But, to come to more sober matter of fact, we think this branch of the farmer's concern is deserving of more attention than it has generally received. The profit derived from a well arranged, well managed poultry yard, is greater, in proportion to the investment, than that of any other stock, bees excepted. More attention has been devoted to poultry in the vicinity of Philadelphia, than any other part of our country. The Bucks county poultry have acquired a good degree of celebrity, even in the New York market, where they are sometimes found in abundance. They are, however, but moderate layers; but their eggs are large and well flavored. Yet they are not considered equal to our dung-hill fowl in all respects.

The *Dorking* fowl stands first in the estimation of those who have raised them. They will weigh from five to eight pounds. Their bodies are large, and better proportioned than any others, being long, full, and well-fleshed in the breast. They have short legs, and beautiful plumage, with five, instead of four toes; are good layers, good sitters, and good nurses.— Their eggs are large, clear white, and of excellent quality. When caponed, in the English mode, they weigh from ten to twelve pounds. Mr. L. F. Allen, of Buffalo, to whom we are

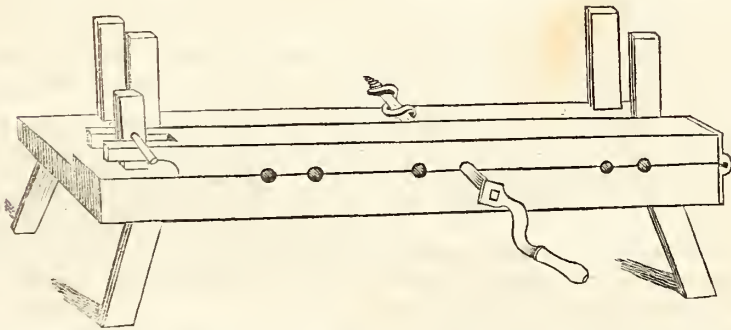
indebted for the Dorking history, has them for sale.

Our object in writing this article at this time, is chiefly to suggest to our agricultural societies the propriety of offering liberal premiums for the best specimens of the various kinds of poultry, at their next annual fairs. We need say nothing in favor of the richness and delicacy of this luxury of the table. Good premiums will soon bring out new species and valuable im-

provements in this, as in any other branch of agriculture.

A writer in the *Maine Cultivator* says his experience tells him, that the best mode of fattening poultry is, to shut them up where they can get no gravel—keep corn by them constantly—give them dough once a day, and skim-milk for drink. Thus they may be fattened in ten days. If kept up longer, should have some gravel, or they will fall away.—*Farmers' Gaz.*

POST-AND-RAIL FENCE.



We have been the steady advocates of post-and-rail fencing, which we believe to be, under ordinary circumstances, by far the most convenient and economical mode of constructing a farm enclosure. Its only rival in this part of the world, is the unsightly worm-fence, which requires double the quantity of timber, now getting scarce amongst us, and involves a much greater amount of labor. The greatest objection heretofore has been the labor of mortising the posts. A year or two ago, we pointed out a mode of procedure which very much facilitates this operation, and which we have reason to flatter ourselves has not been without its effect upon the public. We recommended the boring two holes close together with a two inch auger, and the use of a long narrow-bladed axe for cutting out the wood between them, thus affording a mortise of four or five inches long, two inches wide, and round at the ends, in a few minutes. We were, therefore, much pleased to find in the basement story of the Patent Office, a few weeks since, a fixture, of which we made a sketch, (as engraved above) which we think will be found a great convenience in bor-

ing the holes. The post to be bored is placed between the uprights on the frame, and an ordinary auger, having a crank affixed, is made to turn in certain holes cut to fit the shank. By removing a pin and raising the cap, which turns on a hinge, the auger may be shifted from hole to hole, as required. A stop or gauge should be affixed to the frame against which the head of the post should be placed, so as to make the mortises in the different posts correspond with one another; but then care must be taken in setting, always to leave the same length of post out of the ground.

The advantages of this machine are that it saves the trouble of laying off the posts, and guards against error in the same. It also bores the hole straight, which will not always be effected by a common laborer. It requires little or no more labor to construct it, than is required for the common clamp to hold the post.

We see that Mr. Ellsworth has recommended this machine in his report. He advises the use of a two and a half inch auger. Having had several applications for them we have given an order for some of the mortising axes alluded to.

CURIOUS METHOD OF PLANTING CORN.

Mr. John W. Sweet, of Tyringham, Berkshire county, informs us that he plants his corn in the following manner, and has realized 110 bushels shelled corn to the acre.

He spreads what manure he intends for the field on the surface of the greensward; then he ploughs the land into ridges about three feet apart in the fall—each ridge or row being made of two back furrows turned upon a narrow strip of sward which is not disturbed. In the spring he rolls and harrows these ridges, and on the top of each ridge, twelve or fourteen inches apart, he plants his hills of corn, three or four kernels in the hill, and cultivates the corn through the season with the hoe, cultivator and plough, as much as he deems necessary. In this method, he remarked that he was not troubled with weeds or the drought.

In the fall, as soon as his corn is ripe, he gathers the ears, then pulls up all the corn-stalks and lays them down lengthways between the furrows, and then splits the ridges with his plough, and covers these stalks up completely. Thus is made his ridge for his second crop of corn, to be planted the succeeding spring. The 110 bushels was the second crop planted over the buried stalks.

The above is sufficient to give the reader an idea of this system. He contends after the first crop he wants no more manure for his corn except the stalks applied as we have described.

It is quite probable, the three sods and manure being under the corn the first year, that while these are undergoing decomposition, being the whole period of the growth of the corn, the crop will suffer less from drought than it would were there no vegetable matter beneath it to attract and detain moisture till its decomposition is completed.

As to the fact that corn-stalks are the best manure for corn, the idea is strictly philosophical, and is fully sustained by chemical analysis. The doctrine seems to be well settled, that each crop requires its own peculiar food, and unless the soil contains this, the crop will not flourish. Hence the necessity of rotation of crops, or the well established fact, with practical men, that potatoes will not thrive for many years in succession on the same piece, because the crop has already exhausted the soil of the peculiar food of the potato, while some other crop requiring a different kind of food from what the potato requires, will succeed well on the same land where the potato crop has failed. Thus as the ox and the sheep, when put to the same stack of hay, the one will eat what the other leaves; so it is with plants.

Now, if you shoot a partridge, and cut open its crop, and find in it acorns and buds, you at once infer that acorns and buds are the natural

food of the bird. So when by chemical analysis you ascertain the precise elements of which corn stalks are made, you have ascertained precisely what kind of food the corn crop requires. Now as corn-stalks contain the very elements of the food required by the corn crop, and return to the soil all the substances of which they exhaust the soil, the chemistry of agriculture teaches us that corn-stalks, while undergoing decomposition, furnish the growing crop with those very gases required for the elaboration of the solid stock and ears.

But this is not only the conclusion of science, but a universal law of the vegetable world, by which an all-wise and bountiful God has provided that each precise species of plants shall be re-produced and perpetuated. Thus the forest land, for centuries subject to a mighty growth, from year to year, not only increases in fertility, by an annual top-dressing, fitted to the very purpose for which it is wanted, and composted by the unerring hand of Deity, but also, from year to year, has something to spare for the good of man and beast.

Thus in the vegetable as in the animal world, there is a wise provision, that each shall be sustained and re-produced; and as these natural laws are more and more developed by science, we may expect the purposes of Infinite Wisdom, as to the vegetable world, will be less and less frustrated by the hand of unskilful culture.

Boston Traveller.

For the Southern Planter.

COMMENTS ON THE MARCH NUMBER OF THE SOUTHERN PLANTER.

Indian Corn and Old Field Pines.—J. H. Fuqua, of Amherst, writes with a strong farmer's hand, and it is hoped he will let us hear from him again.

Tobacco.—Mr. Venable's communication in this number on tobacco is very good, but I have a few objections. In the first place, I object to the underlaying of a plant-bed with tobacco stalks. If the stalks were beaten fine and cast over the bed after sowing, the effect would be far superior. Or if, instead of the stalks, lug tobacco were made into snuff, and thus applied, still the better. I should never think of sowing tobacco seed in the month of December, particularly on a warm bed, immediately after burning; for there is certainly danger of their vegetating and being destroyed by frosts. In situations where a plant-bed is liable to be cloyed by drift leaves, the covering should not be put on till the latter part of March or first of April, when the bed can be trodden the second time, if required. The best manure for a plant-bed, is poudrette, or the dung of fowls. The latter part of this communication I particularly commend to the perusal of planters.

Poudrette.—Mr. Woodfin's determination to improve his lands is highly commendatory; and if he does not succeed it cannot be his fault. If I lived in or near Richmond I should undoubtedly seek the privilege of saturating plaster with urine, at the capitol. Also that of composting dead animals with marl near Rocketts.

Broom Corn Hay.—There can be no doubt as to the good quality of broom corn hay; as to the mixture of peas, the idea is new to me. I should not object to rich land for any hay crop; for all that is necessary is to sow thicker.

The Manner of Applying Manure.—So far from objecting to spreading out manure, made the previous summer and fall, as early as the month of February, I object to keeping it on hand thus long. My practice is to spread the manures above referred to, on the meadow or elsewhere in the fall of the year. That made early in summer, can be profitably used amongst the crops in the garden or field.

COMMENTS ON THE APRIL NUMBER.

Jerusalem Artichoke.—I agree with T. F. in all he says, except the distance of planting, which is too great; and the planting of corn and artichokes together, which I think should never be done. I do wish that some person would undertake an experiment for the purpose of ascertaining whether artichokes, like potatoes, cannot be improved by growing from the seeds.

Charcoal.—To those who have surplus wood, Za. Drummond's communication on coal is highly interesting; and it is hoped he will give the result of his experiments.

Blue Grass.—The editorial and extract from T. F. is good and true in all its parts. I would, however, remark that the Kentucky blue grass is the Virginia green grass. The blue grass of Virginia is a different and inferior article.

Double-Eared Corn.—Never too late to do good; so Mr. Hart now answers a question thirteen months old. He does not, however, answer to my satisfaction, for we all know that a single stalk to a hill is apt to bear two or more ears, and thus it may be that the two ears outweighed the one. There is no way of testing the question which is the most productive corn, except by the acre, or other given quantity of land.

Suckering Corn.—If Mr. Hatton will plant or leave his corn thick, he will not be troubled with suckers; for if the plants be sufficiently numerous to digest all the food within their range, all is right. As Mr. Hatton's land is rich, he should never manure in the hill, but rather between the rows, that the stalks may be perfect, and the ears weighty. Or what does Mr. Hatton, or other persons with poorer land, say to manuring with plaster or poudrette, one

or both together, at the last ploughing of the corn?

Edward Hill's Experiment.—I wish Mr. Hill had told us how long his corn rows were, so that an estimate could be made.

To Improve a Piny Old Field.—I think "Old Flu." intended to say, that the pines should not be cut down and turned into coal until the second spring after being belted. With this correction, I hope to try his plan.

The Preparation of the Land and the Cultivation of the Tobacco Crop.—I wish I could recommend this number of Mr. Venable as highly as his first, but as a system, I must object to much of it. When clearing is to be done, I care not how many armed knights make the attack, nor how quick they conquer. I cannot assent to the assertion, that twice as much tobacco can be made on manured land, and that invariably more can be had for it; for many of the new grounds in my neighborhood produce as much as the manured lots, and we invariably get a higher price for the tobacco. Mr. Venable seems to think that a tobacco grower, on new land, cannot find time to spread manure; now I do not pretend to any great things, but I make nearly two hogsheads of tobacco to each hand, yet, by manuring, keep my whole farm in a state of improvement.

It does seem to me that Mr. Venable's remedy for preventing fire, or rot, is worse than the disease; for undoubtedly the tobacco must be small which grows on a light fallow with a hard pan between the hills, a scraping culture, and that not continued longer than the time the tobacco is liable to fire. My rule is to force my tobacco, by deep and late culture, to grow as large as possible, and risk consequences. I have no objection to the application of litter to tobacco land, for it is not only a direct food, but it absorbs water; and here it seems to me that Mr. V. is reasoning against his own argument. Mr. Minor and Mr. Venable are both right about the cut worms, for there are not only two, but three kinds. If Mr. V. would pulverize his ground by the second ploughing in the winter, he would not only kill the cut worms, but all others.

Short Hints.—Argus seems to be a new hand at the bellows; I hope he will try again.

Premium for the Best Specimen of Ploughing, to be performed by the farmer himself.—Oh! I wish I lived near your city; I would show you how to wield the plough handles. It does seem to me that this ploughing match should, and will, draw together a great many farmers, "and may I be there to see."

I trust that Mr. Venable and all others will take my remarks in the kindest spirit; as my sole object is the general good.

INVESTIGATOR.

May, 1843.

PREMIUMS.

In a letter from Mr. Bement to the Editor of the "American Agriculturist," he complains much of the want of judgment in the individuals frequently selected to award premiums at our agricultural exhibitions. The fact that the best judges are frequently competitors, presents a great obstacle to a good selection; but it is certain that complaints are frequently made, and not without reason, of the decision of premium committees. It is not uncommon to see a machine receiving a premium that the public entirely discards, and the manufacturer himself, after a little while, totally abandons. We know several in that predicament. We have seen mechanics not a little amused at the inquiries and observations of an examining committee, and truly they have been sometimes of rather a funny character. The fact is, we settle these things, as we do some others in this country, too much by *guess* work. Irreparable injury may in this way be done to the public as well as to the deserving breeder, or manufacturer; and thus, unless great care is taken in the selection of judges, these exhibitions may become public nuisances, instead of public benefits.

We recollect noticing and commending, at the time it was made, the suggestion of Mr. Allen, referred to by Mr. Bement. He proposes that the chairman of the committee, in making his award, shall state clearly and distinctly the principles by which the committee were governed, referring directly to the competing articles, and pointing out the supposed advantages of the successful one. What an interesting and practical commentary this world afford upon each particular subject. The objection made to it, is, that there are many men who are good judges of an article, that can't make a speech. We admit it, and we like them all the better, we believe, for not being able to make a "speech;" but a man must be very unfit to be a judge or any thing else, who, when he has six heifers before him, can't tell the public why he prefers one to another. In alluding to this subject on a former occasion, with too much respect for the bashfulness (not modesty) of some gentlemen, we hinted that the same object might be effected in a written report, but, on reflection, we are satisfied that nothing would be so satisfactory, and so calculated to increase the interest in, and instruction to be derived from, these exhibitions, as the plan proposed by the Editor of the "Agriculturist."

Who, for instance, would not go a hundred miles to hear "BILLY JOHNSON" compare the "points" of six of the most distinguished horses in the Union, with the subjects before him? It would form a *discourse* more interesting and instructive than all the essays that were ever written upon the subject.

Mr. Bement insists that some fixed principles, as far as practicable, should be adopted by the Society, as a standard for the decision of the committee, and as a source of information for the producers. For instance, he proposes that the following should be agreed on as the points of horned cattle for comparison, and that the animal combining, or possessing, the greatest number of these points, shall be deemed most meritorious:

- "1. Head small with a bright and prominent eye.
 - "2. Horns small and tapering.
 - "3. Neck small at the junction with the head, and gradually thickening to the shoulders.
 - "4. Brisket broad, deep, and projecting well forward.
 - "5. Shoulders full and no hollow behind them.
 - "6. Body deep, round, and capacious; back straight.
 - "7. Loins broad, and wide between the hips.
 - "8. Legs short, full, and muscular above the knee—small below.
 - "9. Flanks well let down.
 - "10. Tail set on even with the line of the back, small and tapering to the end.
 - "11. Broad in the twist, and if a cow, large milk veins and capacious udder.
 - "12. Though last, not least, soft silky hair, thin skin and good handling of the flesh.
- "Other points might be given, but the above will exemplify my ideas on the subject."

AGRICULTURAL CLUBS.

A FARMER'S CLUB has been formed by our friends near Wilmington, Delaware, on a somewhat novel plan. It consists of twelve members only, who meet on the first Tuesday of each month, at the house of one of the members in rotation, at 10 o'clock, A. M., when "an examination," says the Delaware Gazette, "is made by the club of all that pertains to the farm, stock and cultivation of their host—his fields, his fences, farming utensils, mode of applying manure, rotation of crops, &c. &c. The conveniences and accommodations of his farmhouse, barn, piggery and poultry-yard, are all matters of observation and discussion. At an early hour a plain farmer's dinner tests the thrift and cookery of his *better half*—her bread and

butter, her savory meats and pies, well fattened poultry, her cheese, milk and cream, rich, fresh and cool from the just admired dairy, all afford practical themes at the dinner for discussion of their merits, and of woman's worth; as far as practicable, the products of the farm are required to be used for this part of the entertainment. Politics and political matters are at no time alluded to or admitted. After dinner, agricultural subjects are discussed and experiments reported; agricultural works and journals exchanged, noxious weeds noticed, and all the agricultural improvements and publications since the last meeting are passed upon and reviewed—seeds, plants, new grains, &c., distributed—the entertaining member for the next month is agreed upon, and the club adjourns, *always early*, to attend to the *feeding and foddering at home*, before dark. The gentlemen who compose this club, consist of Messrs. Bryan Jackson, C. P. Holcombe, John W. Andrews, Jesse Gregg, Sam'l Canby, Henry Dupont, J. Boies, J. W. Thomson, Francis Sawden, William Boulden, George Lodge and Major Joseph Carr."—*Cultivator*.

This is exactly the plan of the "Hole and Corner" clubs in Virginia, from which no doubt it has been taken. We most sincerely wish we could see them extended into every hole and corner of the Union.

For the Southern Planter.

Bluestone, May 4, 1843.

Messrs. Editors,—The enclosed was written at the request of the Upper Corner Club of Mecklenburg, and read at its last meeting, when the following resolution was adopted:

"Resolved, That the paper just read by the President, Mr. A. C. Morton, be placed upon the records of the Club, and forwarded to the Editors of the 'Southern Planter,' with a request that they publish it in that journal."

ON THE COMPARATIVE ADVANTAGES OF HERDSGRASS AND CLOVER, AS GENERAL IMPROVERS OF THE SOIL.

Gentlemen,—I should not have ventured to deviate from the rules of the Club, in submitting my views *in writing* on the subject of the comparative merits of Herdsgrass and Clover, as general improvers of the soil, but for the invitation to do so, which was given to me at the last meeting. With this apology, I shall proceed at once to the subject in hand.

That no extended system of improvement can be rapidly and successfully carried on, without the aid of the artificial grasses, as a general rule, will, I presume, be conceded by all present.

Manure, which is essential to the improve-

ment of all soils, should be abundant on every farm, and every agent, which aids in increasing the quantity or quality, without detracting from the fertility of the soil, whence it is taken, is desirable, in proportion as it effects this object.—No agents of this kind, so susceptible of extended application, have yet been employed, as the artificial grasses. As food for stock, they constitute the cheapest, as well as the most nutritious; as covering for the soil, to shield it from the impoverishing effects of the frost and winds of winter, and the parching sun of summer, they constitute the most complete; as litter or soiling for stock, they are the cheapest, richest, and most abundant; and as agents to prevent the gradual washing away of the soil by heavy rains, none have been found so effectual. So, that, whether we use them as food for stock, top-dressing for lands laid out to rest, or litter for our stables, farm-pens, &c. their value must be admitted. That they, or some of them, are in general, essential to extensive improvement, will also, be readily admitted; but the question of the comparative advantages of herdsgrass and clover, is one that admits of more doubt. When land, and especially tobacco land, is to be cultivated on the three shift system, clover is certainly preferable to herdsgrass, for the reason, that it forms a more speedy, and a more complete covering for the land, when laid to rest; the clover requiring one year only to arrive at maturity, while the herdsgrass requires several, to produce such a turf as is adequate to any great improvement. But when the four or five shift system is pursued, I have no hesitation in giving the herdsgrass the preference; and so far as the tobacco crop is concerned I have never known it to fail on herdsgrass turf, well cultivated, while clover lots frequently fail entirely, from want of its necessary concomitant, *plaster*, or from the ravages of vermin, or some other unknown cause. As a fallow for wheat, I consider the herdsgrass totally unsuitable, on account of the difficulty of eradicating it, particularly on moist land—while the clover is easily destroyed by summer fallow. As a forerunner of corn, I consider the herdsgrass objectionable, on account of the difficulty of preventing its growth among the young corn, and the additional labor which it requires to reduce the strong turf which it forms; and all which may be partially overcome by early working. But it is chiefly as a hay crop, and as a grazing grass, that I give this the preference to all other meliorating crops relied on in this country. Among the many errors maintained and exploded in the agricultural community, there is not a greater, than that a small stock in proportion to the size of the farm, or in other words, that the "*non-grazing system*" is essential to improvement. Under the mode pursued by many in this country, of keeping a large stock, without the aid of the

artificial grasses, this might seem plausible enough, but many enterprising farmers and planters have discovered, that just in proportion to the quantity of the artificial grasses cultivated, is the means of grazing and keeping stock, and just in proportion to these, is the improvement in the stock, the facility of making manure, and the consequent improvement of the land. My own observation has satisfied me, that the dung dropped by cattle running on land cultivated on the three and four shift systems, without the aid of the grasses, bears no proportion either in quality or quantity, to that from land laid down in herdsgrass or clover. As hay, herdsgrass has no superior, whether you regard the quantity or the nutritive qualities of the food, for every variety of farm stock, or the litter which it affords for the stables and farm-pens. Here the herdsgrass has the most decided advantage over clover, not only in the quantity and quality of the hay, but in facility of curing and preserving it from the effects of moist or rainy weather, or from heat and mould in the shock or stack. Another advantage is, that those, who cultivate herdsgrass, can always obtain their seed at a trifling expense of time and labor, while, as every tobacco planter knows, who has tried it, the clover seed must either be saved at a great expense of both time and labor, at a very busy season, or be purchased, and thus become annually a heavy tax. Another advantage of herdsgrass over clover, is, that land once well turfed, will remain so for years, while clover begins to decline after the second year. And again, clover is not only not valuable for grazing after the month of June, but actually deleterious to stock, and particularly to horses, mules, and sheep, while the herdsgrass affords fine grazing for every variety of farm stock throughout the whole year, with the exception of those portions of winter, when every species of vegetation is locked up with snow or frost. Farther, the herdsgrass when once sufficiently thick to form a strong turf, even on land really poor, will, in a course of years, restore it to tolerable productiveness; while on the same land clover will not grow sufficiently without the aid of manure, to produce any obvious improvement of the soil. More than twenty years experience has produced but little change in my views in regard to these grasses, except, that I am now persuaded that a judicious system of grazing ought to go with them, hand in hand. The long practice of seeding poor, thin and pipe clay flats, in herdsgrass, has satisfied me that there is scarcely any such lands that may not thus be brought, even to tobacco heart, and especially, where they are occasionally inundated. And I have long known, and probably you all know, that there is no land which produces finer tobacco than the old herdsgrass meadow. But I have yet to learn that any such land, or any other poor land, has been

restored to tobacco heart by the use of clover alone.

I have but recently turned my attention extensively to the cultivation of herdsgrass on Bluestone, having from one or two failures to get a good stand, erroneously supposed that the fault was in the soil. I have ascertained, however, from the experience of the two last years, that it only requires, on oat land, to be seeded thick, immediately after the land is ploughed and before a rain ensues, to ensure a good stand. And that the soft, sandy hills, on the west side of the creek, present at this time as good a stand as any close, moist soil not more thickly sown.

While I would most urgently impress upon our Club, the importance of sowing grass exclusively, and especially herdsgrass, I am far from wishing to disparage, or enter the lists against clover. For I am myself pursuing the three shift rotation, of tobacco, wheat, and clover; and so far, have much cause to be gratified at the result. There is much too, depending on the peculiar situation of the farm, character of the land, and other circumstances, to determine the planter as to the expediency of cultivating the one or the other. I would earnestly recommend both, but with my present views, founded on the experience of others, as well as my own, I am constrained to give my most decided opinion in favor of herdsgrass, as a general improver; and in coming to this conclusion I have not lost sight of the benefits to be derived from either. For the value of any material or crop used on the farm for improvement to be fairly estimated must be considered in all the various uses to which it is applied; and in all these I consider the herdsgrass as adding to the resources of improvement, not even excepting the raising hay for market; for I doubt not that after abstracting the hay crop, the meliorating effects of the remaining turf, will richly compensate the owner for all the trouble and expense of preparation, seeding, &c.

In this part of the country, we have no available resources for manure but those derived from the farm and its appurtenances. We have no right to expect that marl, lime, plaster, poudrette, or any other substance of foreign growth or manufacture can ever be obtained here sufficiently cheap, to justify their general and extensive use. It becomes us, therefore, to cast about for some other material to supply their place; and to do this, we must (and the sooner the better) look at home, and here we may, in some measure, help to check that constant drain which empties our purses for the foreign capitalists and brings no corresponding benefits to ourselves.

Vegetable matter mixed with animal and other substances, must ever constitute our chief resource; and there is no vegetable matter more valuable, and none can be raised in greater

abundance for the purpose, than herdsgrass. Our branch flats, creek bottoms, and lands subject to inundation, might be profitably employed in its production. If it escapes the water, it will furnish the stock with food, if inundated, it will furnish them with litter. My own most valuable resource this year has been the yield of an inundated meadow, mowed and regularly cured and stacked in season—furnishing a quantity of good seed, as well as an abundant supply of litter. I prefer the herdsgrass, however, for food, and the quantity and quality of the manure raised from the stock to which it is fed.

Let me now, gentlemen, urge some considerations in favor of the artificial grasses which ought to come home to the feelings and the taste, as well as to the pride of our Club. Is there not something humiliating in having our eyes, whenever we ride or walk into our fields, greeted with the yawning gull, or the more hideous gully? or meeting by the wayside, the king of Pharaoh, who, having devoured all the miserable trash and weeds, which mar the beauty of our fields, are themselves, just about to be devoured by the buzzards? How do these scenes contrast with the verdant grass springing up in all its vigor and luxuriance, and clothing our fields in its beautiful habiliments; with the cattle of a thousand hills grazing bountifully through the day, and returning home at eve laden with deposits, richer than those of the *mammoth bank*, and laying their grateful tribute at the master's feet, and causing his table to groan under the teeming abundance of milk, butter, cheese and beef?

This, gentlemen, is no ideal picture—it is in reach of every man who will adopt the cultivation of the artificial grasses, and avail himself of all the benefits which will result from their judicious and economical use.

Should doubts still remain after the interesting discussion of this subject had at our last meeting and what has come before us at this, they can only be solved by judicious experiments of our own, or observation of the experiments of others. Permit me to state, however, in conclusion, that there is one fact which ought to weigh with no little force on the minds of our Club, and that is, that we know no instance of a skillful and enterprising farmer or planter, who after having gone fully into the cultivation of the artificial grasses, "has returned, like a sow that is washed, to her wallowing in the mire." And that we know no instance of a country in a high state of agricultural improvement, where the artificial grasses are not regarded as the main stay and the one thing needful.

With these views, gentlemen, I must close this subject, not, however, without expressing my regret that I have not had time to prepare something more worthy of my enlightened auditory and the interesting and important cause

which has brought us together, and which it is to be hoped each member intends, to the best of his ability, to promote, whether in his own immediate practice at home, or generally throughout the bounds of the Club.

ASPARAGUS.

We see some writer in the "Farmers' Cabinet" advising the cultivators of this vegetable to let the stalk grow twelve or eighteen inches above the surface of the bed, and then to cut off six or eight inches of the top for the table.—This is an old story, and goes the round every spring. We will warrant, he who spoils one dish in this way, will never try it again. The very moment the shoot is exposed to air and light it begins to lose the delicacy and flavor for which the vegetable is remarkable. It is true that the bud is the tenderest part of the shoot, and that it retains its superiority even after it has begun to turn green from exposure, but this is not in consequence, but in spite of the exposure. A much greater improvement we should esteem a plan, we have seen lately recommended, of enclosing the shoot after it comes through the ground in a tin case, or hollow reed, or even covering it over with a common flower pot. By this means, it is said, it may be grown to an enormous size, without injury to its flavor.

From the Farmers' Gazette.

BUTTER.

MANUFACTURE AND PRESERVATION.—The good or bad quality of butter, depends much on the feed, age, and quality of cows. The best and greatest abundance of milk, is produced during four or five years of their middle age, when they are considered in their prime for all good purposes. The comparative quality of the different cows in a herd, is best ascertained, when they feed on grass only, as other kinds of food more frequently change the quality. Close observation is necessary, to ascertain the merits of each cow in this respect. The feed which greatly increases the quantity, generally depreciates the quality in some measure. Brewery grains particularly have this effect. Roots are generally an exception, as they make rich milk and greatly increase the quantity. Carrots, ruta baga, and mangel wurtzel, are preferable in our estimation to any other. Grass of a natural growth, or that grown on unmanured land, is preferable to that on rich and highly manured soil.

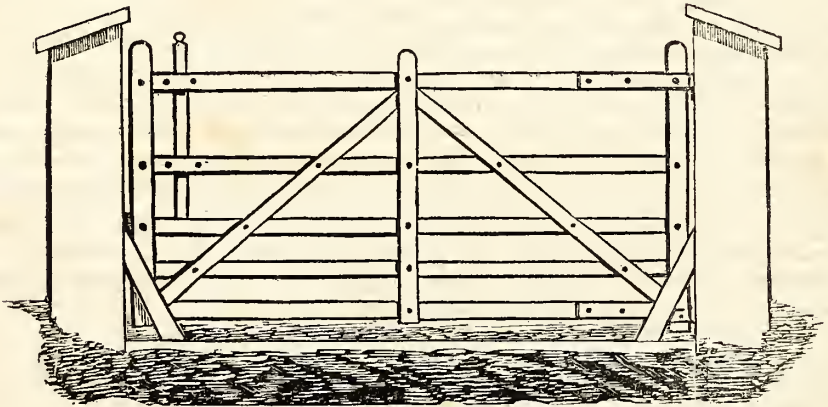
Cleanliness and pure salt are indispensable in making good butter, as every body well knows.

There is no butter that bears the West India climate equal to the Irish. Indeed we believe scarcely any other can be preserved sweet there, any length of time. This is probably owing, first, to their mode of scalding or melting it, in order to make it more compact, and expel all the butter-milk. And in the second place, to their custom of charring the inside of their firkins. This important fact should be known to every dairyman. The conservative power of

charcoal, is well understood in the preservation of fresh meats, eggs, and every other article affected by exposure to the warm atmosphere. It is a perfect preventive of every bad quality imparted to the butter by wood, which is generally found in that put up in firkins. If surrounded by charred wood, the deleterious effects of the atmosphere, which is very searching, will be perfectly prevented. The charring should be so slight, as not to impart color to the butter.

For the Southern Planter.

GATE AND FIXTURES.



The above is a sketch of my manner of fixing posts and gates, which I think is superior to Mr. Rice's, as published in the last number of the Planter. The posts are planted three feet in the ground, which is important, and a sill is accurately fitted in between the posts, which will prevent them from inclining towards each other; in addition, there is a brace from each post to the sill, which still farther prevents the gate from swagging; but they answer the still better purpose of preventing careless drivers from running against gate or post, which is at the expense of the gate or vehicle, and not unfrequently giving fright to a young horse, from which he does not soon recover. You discover that the posts are capped, with an inclination outwards, by which they shed the water and are thereby preserved, and it looks as well as any other finish, when neatly done. The hinges are made to embrace the frame and to extend eight or ten inches on the top and next to the bottom rails with screws or bolts to pass through them. The gate is much stronger, as the rails cannot draw out from the frame, which is too often the

case with the cuff hinge, or the hinge like Mr. Rice's.

The last number of the Planter is worth all of the subscription money. I think I shall keep a standing lot of the Jerusalem artichoke for my hogs. No root crop can surpass the sweet potato for hogs, but the artichoke has an advantage in its withstanding the winter, which supersedes the necessity of digging, and I would say of planting, if the hogs are taken off of them in good time.

If the tomatoes be as valuable for milch cows as the S. C. Advocate says it is, it is truly a valuable vegetable—none superior to it for the table—few equal to it for pigs and poultry, and the ripe fruit forms a most excellent application for the bite or sting of insects, allaying pain and destroying the effect of the poison almost instantly; and, to "cap the climax," I have been told by those who have tried it, that there is nothing better to destroy that dire enemy to "tired nature's sweet restorer," the bed bug.

Yours, &c.

ALBERT E. WRENN.

THE NUTRITIVE PROPERTIES OF DIFFERENT CROPS.

Our estimate of the nutritive value of different kinds of food is generally of a very vague and indefinite character; the ordinary farmer can estimate the effect of different supplies only by long and close observation; and indeed the health and growth of his stock is liable to be effected by so many causes, over and above the food they eat, that the result of his observations, even when closely made, may be far from satisfactory. It would be a great thing then, if by chemical analysis we could discover exactly the properties of different kinds of food; in producing for market, no such investigation is required, the best test of a saleable product being its market price; but the farmer wants to know whether to cultivate an acre of land in potatoes, or carrots, or sugar beets, or whether old-fashioned Indian corn is not more profitable than any of them. He can calculate the expense of cultivation of each; he can estimate the quantity of product in each, and if he could ascertain the comparative nutriment of each, he could at once draw a thorough comparison between them.—Vegetable substances, it has been long known, consist, invariably, of certain constituents, as gluten, albumen, gum, starch, water, salts, &c. in different proportions. Some of these principles are known to be more, and some less, useful in supplying the animal economy: the gluten, albumen, &c. it is said are converted by the vital functions into *flesh*, whilst the gum, starch, sugar, &c. are only useful in creating *fat*. It would seem then, that we would have only to ascertain the proportions of each constituent in a given substance, which chemical analysis will always do, to tell exactly for what purpose it is adapted. Accordingly, scientific men, from time to time, have endeavored to obtain this estimate by analysis: but unfortunately not always with the same results. Indeed, we presume, that the constituents of a vegetable will vary, to a certain extent, with the climate and soil in which it is raised, and we presume too, that these constituents may, in a measure, be differently appropriated by the digestive organs of different animals. Moreover, so intricate and complex is the chemical action of compound substances, especially when subjected to vital action, that nothing can be predicted without an *exact* knowledge of *all* the constituents present in any given case. Although these circumstances, unfortu-

nately, render the deductions from chemical analysis even more uncertain than those drawn from common observation, yet the use of both methods may lead to more certainty than could be obtained from the sole application of either. We give to our readers, therefore, the latest estimates of the celebrated French chemist, Bous-singault, on some important points. He found that the nutritive properties of

100 bus. of beans was equal to 120 bus. of yellow peas.	
100 " " " " " " 191 " of wheat.	
100 " " " " " " 200 " of rye.	
100 " " " " " " 232 " of barley.	
100 " " " " " " 246 " of Indian corn.	
100 " " " " " " 1,096 " of potatoes.	
100 " " " " " " 1,361 " of carrots.	
100 " " " " " " 1,446 " of cabbage.	
100 " " " " " " 2,383 " of turnips.	

Dr. Dana, of Massachusetts, has also lately made a comparative analysis of corn, ruta бага, and potatoes, from which he has deduced the following table:

	100 lbs. of Corn.	Ruta Baga.	Potatoes.
		fresh dug.	fresh dug.
Contain of flesh forming principles: gluten, albumen, &c.	1.26	1.	2.07
Fat forming principles: gum, starch, sugar, woody fibre, oil, &c.....	88.43	13.	24.34
Water.....	9.	85.	72.
Salts.....	1.31	1.	1.39

For the growth of animals and the formation of flesh, it will be seen, that Dr. Dana places a very low estimate upon Indian corn; whilst he esteems it very highly for the formation of fat. Without drawing this distinction between fat and flesh, Bous-singault estimates its nutritive properties infinitely above both potatoes and turnips.

SOOT AS A MANURE.

Improvements in agriculture, scientific and mechanical, are and will be the staunchest props of the landed and farming interests; it is with regret, therefore, that we ever observe a want of candor among those who ought to act as brethren. Much has been said lately of a new and highly fertilizing manure—one which will enable land to sustain and bring to the highest condition successive crops of the same plant.—But why does any secret attach to discoveries of such deep import? Why are a few vague hints dropped, which tend only to mystify, and excite conjecture in the minds of thousands?—Is individual profit to be the result? We are told that the basis is carbon or some carbonized substance; but the same thing might be said of starch, sugar, malt-dust, or any other vegetable product. While we are thus left in the dark,

and, with Macbeth, must be content with the question, "Can such things be true?" it is consolatory to refer to the evidence of facts, such as are detailed in that estimable article by John Morton, Esq., in No. XLI. of the Royal Agricultural Society of England, Vol. I. part iv., giving an account of the mode of cultivation adopted on Stinchcombe Farm, by Dr. Dimmery. Herein we perceive a simple three-course rotation practiced for more than twenty-five years, with increase rather than diminution of produce, and wherein one of the chief fertilizers is *cool soot*. "The general price is 6d. per bushel, the quantity used on the farm is upwards of 3,000 bushels a year, one half of which is applied to the *potato* and the other to the *wheat crop*." A large flock of sheep gives "tail-dress," preparatory to turnips, which follow the wheat, and intervene between it and the potatoes. It is not the present object to enter into any further detail of the particular routine, but merely to make use of the preceding quotation as a prelude to the question of soot as a manure. "We have not," says Mr. Morton, "been able to obtain from Dimmery an idea of *how soot* acts in producing such effects, as it evidently *does* both on the potato and wheat crop; the effect of it is particularly evident on the wheat, for however sickly it looks in the spring, its color and the vigor of its growth is changed in a few days after it has been applied." p. 401. Whatever may be thought of the limited and special applicability of soot, yet where it *does* suit, and is proved by continuous facts to be eminently useful, even when applied in quantity so small as twenty-five bushels to the acre, in such places it is, to all available intents and purposes, the very compound itself which comprises the essentials of the vaunted, mystified, preparation of carbon, that now bores the imagination.—Soot is the purest carbonized product of mineral coal; it contains oil and volatilized resinous matters, and above all, a fixed neutral salt of ammonia, which is perfectly soluble in watery menstrua, but retentive of its ammonia till a more powerful alkali displace it; then as by mixture with lime, potass, or soda, the volatile ammonia is liberated, and revealed by its pungent odor. Without ascertaining what may or may not be the components of any nostrum, we unhesitatingly offer a strong opinion of the efficacy of soot—an efficacy not to be rivalled or surpassed by any known preparation whose chief component is free carbon.

Mark-lane (London) Express.

SALT FOR GRUB WORMS.

In our last volume we recommended the application of a spoonful of salt to the hills of corn or cabbage to prevent the ravages of the cut or

grub worm. We have noticed many testimonials to its efficacy since, and consider it more than ever worthy the attention of our readers. It is advised to apply it in quantities from one to two table-spoonsful on the surface of the hill without placing it in contact with the corn.—One individual remarked that a lot of cabbage plants watered from a salt pork barrel daily, escaped the ravages of the worm, whilst the neighboring plants were entirely destroyed.

EFFECTS OF CULTURE.

The almond, with its tough coriaceous husk, has been changed by long culture into the peach, with its beautiful, soft, and delicious pulp; the acrid sloe, into the luscious plum; and the harsh, bitter crab, into the golden pippin. Attention to nutrition has produced quite as marked changes in the pear, cherry, and other fruit-trees; many of which have not only been altered in their qualities and appearance, but even in their habits. Celery, so agreeable to most palates, is a modification of the apium graveolens, the taste of which is so acrid and bitter that it cannot be eaten. Our cauliflowers and cabbages, which weigh many pounds, are largely-developed coleworts, that grow wild on the sea-shore, and do not weigh more than half an ounce each. The rose has been produced, by cultivation, from the common wild-brier. Many plants may be modified with advantage by suppressing the growth of one part, which causes increased development of other parts.

AMMONIA.

Since the publication of Liebig's work on vegetable chemistry, it has been assumed that the ammonia constituted the most valuable part of stable manure. To arrest and retain this volatile gas then, has been the great desideratum. The use of plaster, the sulphate of lime, has been recommended for this purpose. It is advised to be strewn over the stable litter before it is removed from the stall. In this case, Liebig says, a double decomposition will take place, from which will result, sulphate of ammonia, and carbonate of lime; by this means, the ammonia will be retained in a soluble shape for the use of plants. Mr. Partridge, of New York, who proclaims himself a practised and experienced chemist, denies that any such action will result from the combination, at atmospheric temperature. Now, *nostrum tantas componere lites*, that is, it is not for us to decide when doctors disagree. But we see it recommended, possibly

by way of settling this vexed question, to scatter common salt on the dung heap, or to water the litter of the stalls well with strong brine, an hour or two before removal. From this mixture, result, it is said, muriate of ammonia and carbonate of soda. In noticing this suggestion touching the salt, the Editor of the "American Farmer," whose practical experience is worth a hundred theories of the most learned chemists, says,

"We are not chemist enough to avouch for the action of salt in the manure heap as above described; but this we can state, that some years back, we bought twenty barrels of rotten fish to use as manure for corn. In each of these barrels there were about half a bushel of fish salt, of course, highly charged with the oil of the fish. After using the fish in the hills of corn, one to each, we mixed the salt with ten loads of barn-yard and stable manure, suffering it to remain a few days, when we turned it over with the shovel and gave it a more thorough mixing. We then hauled it out to the field, and spread it on half an acre: on an adjoining half acre, we spread ten other loads of the same manure, but unmixed with salt. We ploughed up the piece of ground and planted the whole in corn. The half acre of corn planted on the ground fertilized with the salted manure, grew from the start more luxuriantly, looked of a darker green throughout the season, and yielded more grain than that on the adjoining half, though the soils were precisely alike, and each had received the same quantity of barn-yard and stable manure, and the same culture. The blades on the salted part maintained their greenness until pulled, although those on the other part, when pulled, were considerably *fred*. It is here worthy of remark that the ears on the former were some days later in hardening.

"We have stated the above fact; and without referring the result of our experiment, at the time, to any chemical combination between the salt and the ammonia of the manure, we were induced by our observation of the effect produced, to conclude that the *salt* used, had imparted to the earth the *capacity of attracting* from the atmosphere more moisture, as well as that of preserving it longer from the evaporating influence of the sun's rays; for the surface of the earth always looked, and was, in fact, much more moist than that of the contiguous piece of ground. What we looked upon at the time as unevaporated *dew*, may have been the *ammonia* abstracted from the atmosphere, and fixed, through the chemical agency of the salt upon the surface, and there made to await absorption by the earth, thence to be taken up by the roots of the plants as nutriment. If this union takes

place, and, we have no right to question it, for the result of our experiment would seem to corroborate the assumption, *SALT* must form a most valuable acquisition to the dung-heap, as any substance, not too costly, which can give fixedness to the eliminating properties of manure—which can prevent the escape of the rich gases—must operate greatly to the advantage of the husbandman, because it would impart to his fertilizing materials, a degree of durability which, alone, they do not possess—and this property of salt, we should think, would be greatly increased in value, in sands and other porous soils, where, as it is known, the effects of manure are much less lasting, owing to the escape of its volatile parts.

"But whether the chemical action imputed to the salt be as stated, or not, we have no hesitation in affirming, that every farmer, who can afford to incur the cost, should procure a few bushels per acre, to mix with his manure intended for his corn ground, as it would prevent injury from the cut and grub worm, as was proved by our experiment; for although the corn on that portion of the ground where the unsalted manure was used, suffered greatly from the ravages of these enemies, that on the part where the salted manure was used, escaped without any injury from them.

"The quantity of salt used by us was greater than we would recommend. It was at the rate of twenty bushels per acre: having it, we used the whole as stated; but we think that five bushels per acre would have answered equally well for the time being. In other experiments which we have made with salt, in sowing it broadcast over turnip ground, after it was manured, ploughed and harrowed, we only used six bushels per acre, and witnessed the finest effects from it on a corn crop grown on the ground the succeeding year."

SUBSTITUTE FOR CREAM.

Beat up the whole of a fresh egg in a basin and then pour boiling tea over it gradually to prevent its curdling. In flavor and richness this preparation closely resembles cream.

THE DUKE OF NORTHUMBERLAND.

We have the pleasure of presenting to our readers on the opposite page, another portrait from the celebrated stock of Short-horns, belonging to Thomas Bates, Esq. of Kirkleavington, England. The pedigree of this animal is of the deepest kind, and his appearance is equal to his breeding. The artist has hardly done him justice in the loin and quarter, but his beautiful, fine, masculine head, wide, deep brisket, and round barrel, are to the life. His color is a

rich roan, intermingled with a few patches of red and white. He is an animal of great presence and finished action, and upon the whole, the choicest bull we ever looked at. He has been repeatedly exhibited with his dam, Duchess 34th, at the great Agricultural Shows in England, and was never beaten.—*Am. Agriculturist.*

For a splendid portrait of the "Duke of Northumberland," now considered the finest bull in England, we are indebted to the kindness of the Hon. Andrew Stevenson, Esq. The picture, which was presented to Mr. S. by Mr. Bates, the owner of the "Duke," graces our office walls, where our visitors, for whose benefit it was intended, can have an opportunity of seeing for themselves to what matchless perfection this noble animal can be brought—on paper, at least. We are assured, however, by Mr. Stevenson, that superb as the picture is, it is by no means a flattered representation of the original.

Our ex-minister, who has been an importer of some of the finest stock in America, talks of agriculture with a *gusto*, that leads us to think, that his capabilities as a farmer, are only second to those he has exhibited to the world as a diplomatist.

TO HOUSEWIVES.

Recent experiments in more than one family in this city, says the Delaware Gazette, have established that the plant known to botanists as the *Polygonum punctatum*, commonly called water pepper, or smart weed, and which may be found in great abundance along ditches, roads, lanes and barn-yards, is an effectual and certain destroyer of bed-bugs. It is said to exercise the same poisonous effect on the flea. A strong decoction is made of the herb, and the places infested with the insect are carefully washed therewith. The plant may also, with much advantage, be strewn about the room. Elderberry leaves, laid upon the shelves of a cupboard, will also drive away roaches and ants in a very short time.

PLOUGHING.

We make the following extract from a letter to the Editor of the "Agriculturist," on the subject of ploughing:

"Plough from the *middle* of the land out.—The usual mode is to plough from the *out edge* of the land to the *middle*. In ploughing from the *middle, out*, the team must at each *end* be turned to the *right*. In following this course two things are gained: 1. The team has firm ground on which to turn, and is not fatigued by

having ploughed land to turn on. 2. The ploughed land is not trampled by the team being turned on it. In ploughing from the out edge of the land to the middle, the team is unnecessarily fatigued by turning on ploughed land, and the ploughed land is so much trampled as to require a second ploughing. Try this; if you have not heretofore practised it, it will be awkward at first, perhaps, but when you adopt it once, you will not be apt to abandon it. These remarks have reference to stubble land, not to sod,—though to some extent they are applicable to sod land. GEORGE W. WILLIAMS."

IT HAS COME AT LAST.

We have it now. The latest and most interesting information we have to impart to our readers, is, that Mr. T. H. Bickes, of Frankfort, Germany, has discovered a method of growing the most luxuriant plants in the poorest soil without manure, and without cultivation; we are not sure whether he finds it necessary even to use seed or not; at any rate, they will undoubtedly be dispensed with as soon as the process arrives at a higher degree of perfection.—This wonderful process, strange to tell, has been in use in Germany for the last twelve years, although, of course, it remains a profound secret; *extremely profound*, we haven't a doubt.

At one of the late agricultural meetings in London Dr. Jackson *guessed* that seeds might be coated with some gummy substance, and then rolled in guano, whereby all the wonders of this extraordinary "secret" might be produced.

HOW TO PRESERVE HEALTH.

It is stated in a foreign paper that M. Fourcault, a French physician, has recently made some important discoveries and experiments, which go to show that an important means of preserving or of restoring health is a *due attention to the access of air to every part of the body*. He succeeded in producing, at pleasure, in animals, before healthy, suppressions of perspiration, congestions of the blood, the derangement of the internal organs, affections of the heart, and the foundation of aggregation of matter in the lungs analogous to the tubercles in pulmonary consumption, and even death itself as the consequence.

The means by which he arrived at these results was the simple prevention of the access of air to the skin, which, by checking the functions of perspiration, caused the matters usually carried off through their agency to be thrown back upon the internal organ.—*Boston Journal.*

For the Southern Planter.

AGRICULTURAL APHORISMS.

NO. II.

My eye has been upon you, and sure enough you have read my first number of hints—I now send a second.

A. Well neighbor B. what do you think of rotten wood as a manure?

B. I think it is no manure at all, but a poison to land.

A. Well what do you think of chips as a manure?

B. When they have rotted they are first rate. Christ directed the apostles to take up the fragments that "nothing be lost," which is equivalent to saying take up the fragments, that every thing be saved. So will every wise farmer obey the command, by appropriating every fragment and atom to its proper use. The Chinese manures his ground with the beard which he shaves from his chin; and if you say this is nothing, so is a grain of wheat, consequently so is a bushel of grains.

I write whilst I am resting, and rest whilst I am writing.

The blindest of all is he that will not see—so we often see persons blundering over lots of manure, and articles which can be converted into it, yet say they have nothing of the kind.

The farmer and the usurer are the only two characters who are accumulating whilst asleep. Nature is at work for the first and art for the last. Nature never errs, but art frequently fails.

When I want to see what my people are doing *on* the mountain I take up my telescope; when I want to see what they are doing *behind* the mountain I take up my SOUTHERN PLANTER.

The best book I ever read was the Bible; well, in one place it says positively that, "if one work not, neither shall he eat."

A few days past I learned that one of my neighbors gave away a fine chance of manure, because he had no time to cart it on his own lands. Now, reader, this is not so bad a story as you might suppose, for friend, remember the story of the dog in the manger.

A youngster once inquired of a substantial farmer why he did not dress finer? to which the farmer replied, my son, I have just spent \$500 for a fine coat to put on one of my fields, and I could not at this time afford a new one for myself. Furthermore, I will say, that if you have cause to be proud of the fine coat which covers your little back, I should be more so of the fine dressing which I have put on my broad field. When your coat has faded, mine will be of bright color, and when yours is tattered, mine will be thicker and stronger.

ARGUS.

Amherst, April, 1843.

VOL. III.—18

STONES ON CULTIVATED LANDS.

It is an error to suppose that stones should be entirely removed from land which is under cultivation. The stones which would be in the way of the scythe while mowing, of course should be removed, but all the smaller ones should remain; and if wholly or partially embedded in the soil, they preserve the moisture during a drought, and thus serve materially to increase the crop. The following article from the Gentleman's Magazine, published in 1773, is to that point:

"It has been long known to experienced farmers, that taking away very small stones and flints, is detrimental to ploughed lands in general; but more particularly so to thin light lands, and all lands of a binding nature. It was, however, never imagined that the damage could be so great, as it is now found to be, since unusual quantities of flints and other stones have been repeatedly gathered for the use of turnpike and other roads. In the parish of Sterenage, in Hertfordshire, there is a field known by the name of Chalkdell field, containing about two hundred acres; the land in this field was formerly equal, if not superior, to most lands in that county; but lying convenient for the surveyors of the roads, they have picked it so often, and stripped it of the flint and small stones to such a degree, that it is now inferior to lands that were formerly reckoned not much over half its value, acre for acre.

"Nor is it Chalkdell field alone that has materially suffered in that county by the above mentioned practice; several thousand acres bordering on the turnpike roads from Wellwyn to Baldock, have been so much impoverished, that the loss to the inheritance forever, must be computed at a great many thousand pounds. What puts it beyond a doubt that the prodigious impoverishment of the land is owing to no other cause but picking and carrying away the stones, is, that those lands have generally been most impoverished, which have been most often picked; nay, I know a field, part of which was picked, and the other part ploughed up before they had time to pick it, where the part that was picked, lost seven or eight parts in ten, of two succeeding crops; and though the whole field was manured and managed in all respects alike, yet the impoverishment was visible where the stones had been picked off, and extended not an inch farther; an incontestible proof of the benefit of the stones."—*Exchange paper.*

SWEET POTATOES.

We have been endeavoring, since the receipt of Mr. Hatton's communication, to comply with his request by obtaining Mr. James Gordon's method of managing the sweet potato. Although

the information comes too late, perhaps, for the growing crop, we avail ourselves of the opportunity afforded by a visit from Mr. Gordon, to transfer his views to our columns for the future use of the reader.

Land intended for sweet potatoes should not be manured too highly—a light, sandy loam, which would bring five or six barrels of corn to the acre, is to be preferred. If the ground is too rich, a luxuriant growth of vine and a large quantity of small and indifferent roots will be produced.

To grow the plants, prepare a hot-bed by laying down ten inches of strong, fresh, stable manure, and cover it with an inch of good surface mould. Upon this lay down the potatoes, as thick as they can be placed, and when the sprouts begin to break ground, cover your bed an inch thick with the poorest sand you can find. This will smother the grass and save the labor of hand weeding. The proper stage for setting out, is when the sprouts just begin to turn down, preparatory to running into vines.—When they have arrived at this state, they are to be plucked off by introducing the finger and thumb as closely as possible to the parent root, taking care not to bruise the plant more than is necessary in the process.

To prepare the field for the reception of the plants, it should be deeply and freshly stirred: it should then be thrown into ridges, ten inches high, four feet apart; if the plough does not make the ridge of sufficient height, the earth must be drawn up with the hoe; as it is important that the plants should be placed in a high and dry position. After the top of the ridge is levelled, proceed to set out the plants, fifteen inches apart. As soon as they have taken hold, run the plough as close as possible to the plant, turning the earth from it on each side; clean out the ridges between and about the plants with the hoe and hand, taking particular care never to let the grass grow upon the ridge.—The next process is to hill up the plant by throwing the dirt to it on each side, when the hoe and hand should be again put in requisition, if necessary, to complete the hilling or to uncover the bud. After every rain, the vines should be examined, and wherever a joint has put forth a root, which many will do, it should be severed from the earth, else your product will consist in a great number of little tubers, instead of a smaller quantity of fine potatoes.

This is all the cultivation that will generally be necessary; but the crop must at any event be kept clean and free from grass.

Mr. Gordon has never succeeded well in keeping the potato, although he has tried many plans; if he could discover a mode of keeping in which he had confidence, he would prefer the crop, as a food for stock, to any he ever raised.

CURE FOR WORMS IN CHILDREN.

A writer in the *Farmers' Register*, who being a slaveholder has a large family under his care, says that for nearly thirty years he has found the following preparation a certain cure for worms: "Take the fat of old bacon, sliced and fried in a pan until the essence is all out of it, take out the rind first, then put in as much wormseed (vulgarly called Jerusalem oak,) as is necessary, as much sugar or molasses as will make it palatable, and give it three mornings in succession. The children will eat it freely—some you will have to restrain from eating too much. Incredible as it may appear, I have known as many as one hundred and twenty or thirty large worms come from a child three or four years old. I usually give the medicine spring and fall.

For the Southern Planter.

RECIPES.

Messrs. Editors,—The following are the recipes obtained in Maryland, to which I alluded in my last:

Recipe for Dyeing Green.—Take $\frac{1}{2}$ lb. of oil vitriol, 2 oz. indigo—put in a bottle and let it stand three or four days; shake it well every day; then boil a strong liquor of hickory bark; dissolve 2 lbs. alum in water, put 6 lbs. yarn in the alum water, pour all the ingredients into the dye, put it all on the fire, and boil it well. The same dye will then color 6 lbs. more of a paler green. After it is dyed, and dried, it must be washed out with good soft soap.

To Dye Red with Red Wood.—1 lb. red wood, (hacked) 2 oz. alum, powdered; the red wood must stand twenty-four hours in river or spring water; then boil it well, and after straining, mix your alum and aquafortis and boil it well for several hours. Mix 1 oz. aquafortis, 1 oz. block tin, in a tumbler, and set it in the sun about one hour. The above will color 2 lbs. of yarn.—After being dried, wash out with soft soap.

To Dye Pink.—2 oz. cochineal, $\frac{1}{2}$ lb. cream tartar, 1 lb. alum, the whole put in a kettle of soft water; then put in 6 lbs. clean yarn, and boil it well; not to be washed after being dried. I saw several very beautiful carpets that were dyed with the above recipes, and for brilliancy of color, they would compare with the finest

Turkey. I was particularly struck with the substantial appearance of one carpet, and on inquiry, was informed that the filling was entirely cow's hair, carded and spun by hand; the cost was but a trifle, and a more durable looking carpet I never saw. I think the whole filling of cow hair, all white, did not exceed two dollars for a whole carpet. Persons near a city would do well to turn their attention to the manufacturing this article, as it has generally been deemed useless. A small quantity of cow's hair, with the inferior and coarse wool, would

make a carpet that would outlast any carpet that could be bought: and in these hard times, every thing that tends to economy should receive attention. Politicians may rant as much as they please as to the why and wherefore, and settle the *cause* of hard times among themselves, but when they come to the *remedy*, they will find that nothing but industry and economy will afford relief.

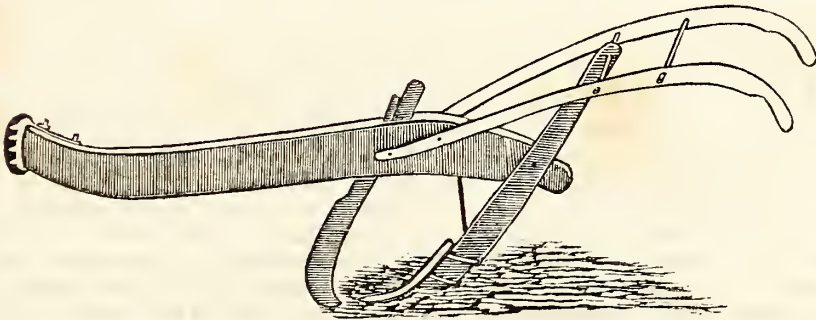
Yours, respectfully,

GEORGE W. CRAVEN.

Franklin, May 10, 1843.

For the Southern Planter.

A JUMPING COULTER.



Messrs. Editors,—I noticed that in No. 4 of your valuable periodical some allusion is made to the form of a grab for getting up ivy roots, &c. Now, I don't know much about 'grabbing,' but I will try and give you a description of a plough that is in common use in this country, that will destroy ivy and every other small growth with which it comes in contact. We call it a "jumping coultter." Our mode of clearing our forest lands is to cut off every thing (with the exception of the large trees) close to the ground: we then rake off the trash, and put the "jumping coultter" to work, with three mules hitched to it, and they break it up thoroughly, cutting and tearing almost all the grubs and roots to pieces; we then cross-plough it with the same implement and the land is ready for cultivation. You would be astonished to see what large roots will be severed by the coultter-plough, which I will now endeavor to sketch and describe.

In the first place, you have a shovel made, such as is common in Virginia, only much stouter, that is, much thicker: then, have a coultter made of bar iron, one inch thick, and two inches wide, shaped as in the drawing; this

coultter is to be layed on the front with the best cast steel, and brought to a perfect edge; it is all-important to keep the coultter sharp, which must be effected by grinding whenever necessary. The temper should be as much regarded as that of any other cutting tool. The wood work is like that of other ploughs, except, that it must be made uncommonly strong and heavy. The coultter must be put in the beam inclining as represented, and as it wears shorter, it must be driven down, so that its point will always be kept about two inches below the point of the shovel.

If we had to grub our lands in the old Virginia fashion, a man would hardly open a farm in his lifetime; for the growth here is heavier, and the roots twice as numerous as with you. We use a hoe something like your grubbing hoe, only it is broader and is layed with steel, and with this we cut off every thing under the size of a man's arm—the larger growth we cut with axes. You know, and every body else who has had any clearing to do, knows, that a hand can cut off in this way three or four times as much as he could grub.

Another advantage in these ploughs, is, that

you can break so much more land in the same time than can be done in the old way, that is, with the common coulter; for if the jumping coulter comes in contact with any thing that cannot be cut in two (even if it is a stump) it will immediately hop over, and strike into the ground on the other side. Instead of hanging in a root or stump, and whooping and hallooing to back the horses and extricate the coulter, with this fixture, your plough is continually going on, doing the best work I ever saw done in new ground.

Your obedient servant,

R. C. DICKINSON.

Spring Grove, Todd Co., Ky, April 19, 1843.

For the Southern Planter.

VEGETABLE AND ANIMAL SUPPORTERS.

NO. II.

Water.—Water is one of the great vegetable and animal supporters: it exists in three distinct forms—solid, fluid and vapor or gas; if a small degree of heat enters water in a solid state it becomes liquid; if a still greater, it is changed to a state of vapor. Water is a compound, and not a simple elementary substance; containing oxygen and hydrogen in the proportions of eighty-five parts of the former, to fifteen of the latter. It congeals at 32° of Fahrenheit's scale, boils and becomes vapor at 212°, and evaporates at every point of the thermometer without being decomposed: a very high or very low temperature promotes combustion, hastens its decomposition, and if confined, it becomes ignited. The atmosphere sustains water 34 feet, viz: a column of water of a given diameter is equal in weight, to a column of air of the same diameter, extending to the height of the atmosphere: so that we can by removing atmospheric pressure from fountains, raise water 34 feet; beyond it, forcing pumps are necessary. Water is conveyed over valleys, under ground, and may be carried over mountains whose height does not exceed 34 feet above the fountain; provided a syphon be first filled with water to exclude air. Springs are supplied from elevated fountains—they are continued, reciprocating, intermitting, or remitting, depending on the supply of the fountain: there are also, natural and artificial jets of water; daily, weekly and monthly springs, and occasionally rivers. Such springs have syphons under ground, communicating with the bottom of the reservoir above, and as the angle of the syphon reaches the height of the fountain, water cannot flow until it passes the angle; then it descends through the longest arm of the canal, and falling below the bend of the syphon, causes the stream to weep, stop and run alternately, according as more or less time may be required to fill the fountain. The atmosphere

is loaded with water in a state of vapor, and if suddenly condensed would deluge the earth: when raised by heat, it is condensed and returns again to the earth, variously modified into dew, mist, rain, hail and snow. The particles of water, have a strong affinity for each other; clouds passing over arid countries, seek a humid atmosphere and find their way to water courses; blending and uniting with moist clouds from the ocean. Many tribes of plants, are nourished and supported by air and water alone; our seas are frequently covered with weeds and mosses in such large masses as to obstruct the progress of ships.

Water is contained in all bodies, in a greater or less quantity, and is either in a state of simple mixture, or in a state of combination. In the first, it renders bodies humid, is seen by the eye and may be disengaged with facility: in the second, it exhibits no character showing it to be in a state of mixture. It exists in this form in the wonderful variety of salts, crystals, plants and animals; imparting to them transparency, strength and firmness. Crystalized quartz, gems and diamonds, lose all transparency when deprived of their water of crystallization. Many bodies are indebted to this fluid for their fixity, the acids, for example, acquire fixity by combining with water. This element is the grand solvent and the grand cement of nature; without it the vegetable and animal kingdoms become skeletons, the mineral world loses its force of cohesion and tumbles into dust; the great globe itself a pulverulent mass, and if attraction be removed it will cease to exist! Water facilitates the coagulation, re-union and consistence of the particles of matter, and when disengaged from its combinations and in a state of liberty, is one of the most powerful agents on earth. It bears a part in the formation and decomposition of all bodies in the mineral world—is the life of vegetation, aye, and the death too—animals are dependant on water for the free exercise of all their functions, and it hastens and facilitates decomposition as soon as they are deprived of the principle of life. This fluid has never been compressed, but is very obedient to the action of heat, by which it expands and fills immensity. Its pressure upwards, downwards and laterally, is the same at any given depth; the upper particle in any column presses upon the next particle with its whole weight, and is equally pressed upwards by the re-action of the second: the pressure upon the bottom of a vessel, is equal to the product of the area, multiplied into the perpendicular altitude of the longest column; and in two vessels of equal bottoms, the pressure will be proportionable to the perpendicular altitude. To find the pressure on a mill-dam, multiply the area of the dam in square feet, by half the depth and that product by 62 pounds, the weight of a cubic foot of water.

Bodies of water, large or small, are regularly convex, being part of a sphere of the same magnitude with the earth: a vessel of water at the centre of the globe, would run over through the whole of its ascent to the surface; as its convexity would continually decrease while receding from the centre. One body of water however small, will balance another however large, which seems to be a hydraulic paradox. Branches, creeks and rivers, are inclined planes, and yet their velocity is not accelerated; the resistance of the sides and bottom causes uniform motion: hence the water moves slowest near the sides and bottom because of the greater resistance. If a dam be thrown across a stream, the water becomes refluxent from one point to another, until it reaches the height of the dam; the refluxent point is then at rest. The velocity of a stream is greatest where the bottom has the greatest declivity, and where the velocity is least, the breadth or depth is greatest: the same quantity of water, however, must pass through every part of a stream, deep or shallow, broad or narrow in the same time; otherwise some parts of the channel would become dry: where the channel is narrow the velocity is greatest, and the reverse when wide and extended.—Hence the momentum of moving waters in the whole river at any particular section, is the same. Rain water is the standard for comparing the specific gravities of bodies; a cubic foot weighing 62 pounds avoirdupois: then as the difference between the weight of any body in air and water, is to its weight in air; so is 62 pounds to the specific gravity of the body; in this way we may compare the specific gravities of any number of bodies. The weights of bodies of the same magnitude, are to each other as their specific gravities; the specific gravity of gold is 19, viz: gold is 19 times heavier than its bulk of rain water. The most brittle and delicate substances, are embraced and protected by water; the thinnest glass or egg shell, bears the greatest pressure, without being broken when immersed in this fluid. It is yet a doubt with the philosopher, whether water in its gross state, enters directly into the composition of plants; the probability is, that when it comes in contact with their roots and leaves, they cause a decomposition of this element, and after performing the great work of elaboration, and evolving sap, oil, mucilage, sugar and other secretions, these principles again unite and form water. But of this we know nothing, it is all doubt and conjecture; we know, however, that water is obtained from plants by pressure, excision, heat, &c. which is proof positive that it is a component part of vegetables.

GALEN.

P. S.—Correct an error in the first number, viz: for "5,500 species of plants," read 55,000 species of plants, and oblige
G.

For the Southern Planter.

TO PICKLE STURGEON.

If you wish to make a round, take the back bone out without cutting it in two, wash it and lay it in salt water not very strong, that day and night, the next day, put it in a strong brine; the third day, wash it, tie up the round with a cord, then boil it until you can run a straw through it; then take out the large scales, and draw the cord tighter; if you find it is not salt enough, set it on the end and sprinkle it with salt, let it remain until the next day—whilst it is boiling, skim off the oil; when it is done, take all the oil off the liquor and strain it: to two gallons of liquor, put four table-spoonsful of allspice, two table-spoonsful of pepper, two pods of red pepper, boil the spices in the liquor well; if it requires more salt, add it to your taste, then put it in the vessel in which it is to remain when cold, add half a gallon of strong vinegar and put in the sturgeon. It will be fit for use in twenty-four hours.

We received the above from one of the best housewives in Virginia, but our trial with it was a total failure: we hope our friends may have better luck.

RECOMMENDATIONS.

We have been not a little surprised lately at receiving orders for articles upon the faith of our having recommended them so highly, when in truth we knew nothing more about them than the person sending the order. We hope we are not to be held responsible for every puff and recommendation that may appear in the Planter. We admit freely, statements on both sides of any subject, and express our opinion when we please; for any statement made upon our personal knowledge, we are of course responsible, but no man in his senses will attempt to extend the principle any farther. For instance, in the last Planter "Exall & Brother" advertise and describe, over their own signature, a threshing machine, which we have never examined, and immediately one gentleman writes to make further inquiries about this machine, which, he says, is so highly recommended by us. Again, We announce ourselves the agents for Bommer's method of making manure, and insert an advertisement of Mr. Bommer's, over his own name, describing its excellencies, &c. To this we append a statement that we had understood at the North, that Mr. Bommer was there considered a gentleman and a scholar, and that we met with many who, without trying it had

formed a favorable opinion of its merits. This was all we said; for it was all we knew. Well, a gentleman immediately encloses us twenty dollars for the method, as he says, entirely upon the faith of our recommendation. Now, we protest against this buckling responsibility on our backs, whether we will or no. As faithful chroniclers, we are bound to tell all we know, hiding nothing, concealing nothing; but this is all you can ask, and if with a knowledge of all the facts, you come to an erroneous conclusion, that is your lookout, not ours; if even our poor opinion should serve to mislead you, we should regret it, it is true, but if conscientiously given, we cannot repent it.

We beg our friends to notice the distinction between statements made by us on our individual responsibility, and statements appearing in the Planter from other sources. Whilst we will not permit our readers to be mislead by what we know to be the *misstatements* of others, we can never consent to be considered responsible for the truth of all that appears in the paper.

For the Southern Planter.

BUCKWHEAT.

Messrs. Editors.—I see your correspondent Mr. Ship asks for information for raising buckwheat, and since our wheat crop is so precarious, I think we should not rely on it altogether, and in a mixed crop I know nothing better than buckwheat. I have a little practical knowledge about its culture. I will endeavor to give it.—As to soil, sandy loam is best: a northern exposure of any good land will bring buckwheat. The ground should be prepared as for any other small grain. I have generally sowed three pecks to the acre; cut when half the seed is ripe, taking care to cut in the morning when the dew is on, or on a damp day, as it shatters very much when cut dry. I have generally seeded just before going into harvest, but any time before the first of August will make a good crop, if the season is not too dry. It should be set up in small armfuls, and twisted at the top to keep it from falling down; it should stand until you are ready to thresh; it can be hauled to the barn in a tight body or threshed in the field. It is the best grain that is grown for fowls, and it is very fine for bees, as they make a quantity of honey from it at a time when they cannot get any thing else: ground, it is fine for hogs or horses. There is some art in making good flour, as the hull is black. The plan adopted by my father, who owns a mill, is, to hull it by raising the millstones just so as to rub the hulls off, then he runs it through a fan and mixes a small

quantity of wheat and corn, and grinds and bolts the whole together. The cakes that are made from this flour, with good butter, are "hard to beat," and if friend Ship should have the good luck to make an abundant crop, and will *ship* some of his flour, made as above, to Richmond, he will find pretty ready sale for it. Take care and keep it clear of grit.

Yours, respectfully,

GEO. W. CRAVEN.

IMPORTANT TO FARMERS.

A NEW ERA IN THE HISTORY OF AGRICULTURE.—MEETING IN FLATBUSH.—It will be observed by the following statement that every farmer may now manufacture any quantity of manure he may require for his own use.

A committee consisting of the following gentlemen, Elias Hubbard, Esq. of Flatlands; Ferdinand L. Wyckoff, of New Lotts; Michael Stryker, of Flatbush; Henry S. Ditmas, of Flatbush; Johannes Lott, Jr. of Flatlands, appointed from a large company of farmers, assembled to examine Mr. George Bommer's method for making vegetable manure by fermentation, on the premises of Garret Kouwenhoven, Esq. of Flatlands, in this county, respectfully report,

That after careful examination of a heap laid up on the 19th of April and opened this afternoon, (May 3d, 1843,) they most cheerfully acknowledge that the change produced upon the materials used, far exceeded their most sanguine expectations; said materials, consisting of straw and salt hay, presented, when opened, the appearance and smell of rich manure.

Said committee further report that they also examined the book containing Mr. B.'s method, and are fully persuaded that the various ingredients used, are all, in themselves, beneficial, and in their combination must produce the most favorable results. The committee most cordially commend the above method to the serious consideration of the farmers of Long Island.

By order of the Committee.

ELIAS HUBBARD, *Chairman.*

Flatlands, May 3, 1843.

The above is taken from the "Long Island Star," and goes far to corroborate Mr. Bommer's claim to the discovery of a valuable agricultural invention. Since the publication of our last number, we have received so many applications and inquiries relative to the merits of this process, that we wrote to Mr. Bommer, advising him to authorize us to place the method in the hands of some individuals whom we would select here at home, known to us, and known to the public, for their integrity and judgment, and

upon their certificates of its merits to sell his rights, without any farther guarantee or warranty. To this application Mr. Bommer promptly responded, authorizing us to take any steps we chose to test the merits of his invention, in which it is certain he entertains the most unbounded confidence. Accordingly, we have been making the necessary arrangements, and hope, as soon as the nature of the thing will permit, to furnish our readers with satisfactory information upon the subject.

In the meantime, we see from the last number of the *American Farmer*, that Mr. Bommer's claim to the title of *discoverer* is disputed by another French gentleman, who claims to have been the first to introduce the process into this country. The public, probably, are much less interested in settling the honor of discovery, than the merit of the invention. We copy the article as we find it in the "*Farmer*." If we understand it correctly, Bommer's right to sell is not disputed, but an equal claim is set up by other parties, which is totally denied by Mr. Bommer: so that the purchaser from the one is upon sure ground, whilst the other may be much harassed if Mr. Bommer succeeds in establishing his exclusive claim. The Editor's testimony as to the result of the operation, as far as appearances go, is very satisfactory.

"GOULIART'S MODE OF MAKING MANURE.—
We rode out to Mr. *David Carlisle's*, in Baltimore county, on Saturday last, to view a pile of manure put up by Mr. Gouliart, for that gentleman, upon what is called the *Bommer* plan. Of the claim of the latter gentleman to the invention there is at present a doubt, but as we are not called upon to decide the claim to invention, all we will say at the present time, upon that head, is, that a French gentleman by the name of *Bear*, appears to us, from what we have heard, to be the first one who introduced it into America, and that he and his partner, Mr. *Gouliart*, have made improvements in the mode of preparation. Now for our opinion as to the value of their plan. The pile at Mr. Carlisle's was put up on the 1st of March, when the *materials were much covered with the ice and snow; and, of course, in a very bad condition to be operated upon. They consisted of unbroken corn stalks, leaves from the woods, coarse marsh grass, and the harsh rubbish usually found on a farm.* And notwithstanding the unsuitable condition in which those materials were at the time the pile was made, the uncongenial state of the weather nearly ever since, and the unavoidable neglect by Mr. C. as to the regular application of the decomposing liquid,

we found a mass of most excellent manure, which was for the most part of *black, unctious, and of fertilizing appearance*, and we hesitate not in saying, that we have not the slightest doubt as to the intrinsic value of Messrs. *Bear & Gouliart's* method of *rapidly* converting all ligneous and woody substances into good fertilizing manure, and that their plan will be worth millions to the agricultural community of America. We will refer to this subject again, probably in our next."



TO CORRESPONDENTS.

We are obliged to Mr. BEMENT for his communication on the culture of roots, received too late for this number. We are doubly indebted to this gentleman for any communication from his pen, because, with a liberality unparalleled, he affords his valued assistance to our columns, whilst he is engaged in editing a paper of his own. It may not be known to our readers that the "*Central New York Farmer*," a paper at all times worthy of their especial patronage, has placed its claims to public favor on the highest grounds, by securing the services of Mr. Bement as assistant Editor. A single article from his pen would at any time be valued, in the editorial market, at ten times the price of the paper, which is only fifty cents per annum.

Articles from "*A Young Farmer*;" from S. D. M. on the improvement of old land; from J. Duval on the division of arable land; from W. O. G.; and several others, received too late for this number, will appear in the next.

POSTAGE.

Of all the ridiculous laws that disgrace the statute book, the postage law of Congress, as construed by the Postmaster General, is the most absurd. Our paper, without a cover, was declared by the Postmaster to be, *from the nature of its contents*, an agricultural newspaper, and like the "*Cultivator*," it was subjected to newspaper postage, the maximum of which is 1½

cents. But as soon as it was stitched and covered, the nature of its contents remaining the same, mark ye, the Postmaster decides, and no doubt properly under the law, that it is a *pamphlet*, and as such, subject to pamphlet instead of newspaper postage.

The cover "if used for general advertising purposes" is charged as another sheet. When we became aware of this fact, to save a portion of this unjust burden to our subscribers, we discontinued our general advertising business, although a small source of profit to us, and used the cover only for our *private* purposes; then the postage was, under our construction, marked "1½ cents under a hundred miles, and 2½ cents over a hundred miles." But having received orders that the number was wrongly marked, and that it should pay 2½ and 5 cents, we of course made the alteration required, and have, in consequence, opened again our columns to our advertising friends.

The effect of this regulation is, that the paper published at one dollar is taxed to distant subscribers with a postage of sixty cents, or more than half the subscription price: whilst the large periodicals of the North, as the "New World," &c., three times our size, and burdening the mails three times as much, because they are not pricked by a needle, pay about one-fourth the postage. What a ridiculous and impolitic distinction! Works of a substantial and permanent character, which the government should rather encourage than depress, are precisely those which are most likely to be furnished in that form, which subjects them to this ridiculous tax.

Many of our subscribers object to the disproportion between the subscription and the postage, and we are so often the sufferers by this absurd regulation, that, in self-defence, we shall probably be compelled, another year, to forego our neat and convenient form, and issue our publication in the style required by the capricious whim of our Congressional representatives.

EDITORIAL DEPARTMENT.

In consequence of an intended change of residence, Col. Burfoot has disposed of his interest in the *PLANTER* to the subscriber, who is now sole Editor and Proprietor of the paper. By this arrangement, the subscribers to the paper will sustain no loss, for whatever it has hereto-

fore been, it will be likely to continue; it having so happened, that from the hour of his connection with it until the present moment, the junior Editor has never written a word for the paper, or even seen a sheet of it until it was in the hands of subscribers. Indeed, we entertain a strong hope that the Colonel may be induced to do more for "love than money," and now that the irksomeness of duty is removed, we expect to receive from his pen those contributions that he is so able to afford.

C. T. BOTTS.

ERRATUM.—For now, *nostrum tantas*, &c., in the last line but two of the 134th page, read, *non nostrum tantas componere lites*.

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