

say this, that, and the other can't be done for less money than their produce brought them. Well, I will agree with them *taking their plans*. But when they do as I recommend, [first learn how] then they will be sure to make money by farming.

Let us see if I know anything about the case: In 1863, I bought a piece of land from a man who worked hard, and kept up a two-horse farm. When he left the place, [which was about the first of January,] he had only ten barrels of corn, a very small lot of wheat, [say 25 bushels,] and about as many oats, pork enough to last him barely half the year, and no cotton at all. I did a little better than this out of my first three crops. I had some to spare, and in 1866, I commenced getting some agricultural works, and soon became interested in them. The first thing I learned was, that I knew nothing about farming. As soon as I discovered my own ignorance, I began to learn, and so fast as I learned, I began to put in practice my knowledge. And the result of this was, that upon the same place that one man had left because he could not make support, five years after, I commenced farming according to the plans I had learned from agricultural works, I raised produce enough, outside of support for ten in family, to last me hauling to market four months in the year. I lived nine miles from my market—Raleigh.

You can see, Mr. Editor, that my whole aim is to get our farmers to read.

As it took some time to haul my produce to market, some may wish to know what crop I raised, I will answer: Corn, fodder, wheat, oats, potatoes, sweet and Irish; cabbage, turnips, and from ten to fifteen bags of cotton.

I had only a two-horse farm.
G. W. ATKINSON.
APEX, N. C., April 7th, 1874.

The Fence-Law Discussion.

Ed. State Ag'l Journal:

I have read with much interest the communication of your correspondent 'Quankey,' on the abrogation of the present fence-laws.

I agree with him that in most of the States of the Union there are laws in operation on

The first step toward the laws so as to require the confinement of stock, instead of the confinement of crops, is to take the case of crops to be affected by the change. If, after considering the matter *pro and con*, the people of a community, or township, or county, should not be *decidedly* [or *overwhelmingly*] favorable to the law requiring crops to be fenced sufficiently to protect them against all manner of stock, I for one should oppose the change. To put such a radical change in law and custom, on the people, by any sort of trick or legerdemain, before they desired it, fully understanding its consequences, and cordially approving it, I admit would be "folly approaching to madness."

Now reminding 'Quankey' that I would do what I propose, in this matter, entirely by and through the people, and for the whole people, [or would not do it at all,] let us take up *seriatim*, the reasons he gives in opposition. He speaks of the 'hardship' of cutting off the non-landholder from the benefits of the range. The non-landholder is, one of the people, entitled to his vote equally with the owner of the land. Without his muscle and brawn, land would be comparatively of little value to those who hold the title deeds. He is subject to road duty, military and all civic duties as well as the free-holder. In this discussion, he is allowed to be morally, [as he is legally] entitled to all rights under the law, that the land-owner enjoys. Finally he is interrogated at the polls for his wishes concerning all changes in the law. Now, having accorded all this to the non-landholder, I object to go further and make him a special legislative pet, by giving him grazing privileges on other men's lands: giving him the use of lands by a law that requires somebody else to pay the tax upon them; giving him this privilege, too, when he does not ask it—even when he is presumed [as one of the majority] to have voted against it. So I take it that the "hardship" on the non-landholder is not a sufficient ground of objection to the proposed change. All laws impose sacrifices, or hardships, or duties, on some persons or classes. Taxes on lands lying waste that are as useful to other people as to the owner, are in this sense a hardship. But the will of the people makes them law, and so they are just.

But I contend that non-landholders and laborers, who are engaged in agriculture, are as deeply interested in the proposed alteration as any other class of people. The more extensive the area open to profitable cultivation,

the cheaper the tenant can rent his land. The more extensive the area, equally well manured and cultivated, with a given amount of labor, the more active will be the demand for labor and the better the pay proprietors can afford to give to labor. Since nothing operates so effectually to circumscribe the quantity of arable land as the fence laws, I am asking non-landholders, both tenants and farm laborers, to consider whether their interests do not concur with the "new way."

"Quankey" asks "will 'Rusticus' name, for our enlightenment, any country in the world, where farmers attempt to cultivate their crops without an enclosure?" Rusticus would not forbid farmers to enclose their crops by fences. He thinks if the plan he favors should first be endorsed by public opinion and then made effective by legislation, still many farmers would have some sort of enclosures or at least marks around their crops. Slight fences, hedges, ditches and various other devices would mark lines over which persons would be warned not to trespass. Such, we suppose, are the fences in Europe. Those men who desired to build stone walls around their farms could do so. No man and no law would let or hinder them.

No doubt under the "new" plan proposed, crops would sometimes be damaged by stock—not more I think than they are damaged now by the same cause.

"Rusticus," our friend says, "underrates the value of the range." I know that in some sections of the State the range is valuable. I take it that the people in those sections, counties or townships, are capable of deciding that their range is valuable, and would not by their votes compel the confinement of stock. But what remedy will Quankey provide for those other sections of the State where there is no range, very little timber, little forest and long lanes between fences that are decaying to the ground? Will he say to the laborer and the landholder—to all the inhabitants of such sections—no matter what your wishes are, you must import timber and keep strong fences five feet high? Or would he have us abandon all crops in these regions and give up the soil to cattle, sheep and hogs? Would he make a solitude and call it—a range?

Our friend's "range" that he thinks it would have its drawbacks, according to his own statement. If the people do not adopt my plan, they will watch and nurse their stock. We will have better stock, and it will be better fed in winter and in summer. Of our cattle, he truly says, "we starve them in the winter and when spring opens they are mere skeletons, thus depending on the 'frozen North' for our butter, and depriving us of milk for our coffee. This is alike a shame and a disgrace." Rusticus could not have uttered stronger language against the reckless, improvident, lazy, starving, range system.

But for fear of trespass over limits not distinctly marked to me, I forbear for the present.
RUSTICUS.
Wake Co., N. C., April 17, 1874.

Maine Law Concerning Fertilizers.

[EXTRACT.]

COMMERCIAL MANURES.

Sec. 48. Commercial manures sold or kept for sale in this State, shall have affixed to every bag, barrel, or parcel thereof which may contain fifty pounds or upwards, a printed label which shall specify the name of the manufacturer or seller, his place of business, and the percentage which it contains of the following constituents, to-wit: of soluble phosphoric acid, of insoluble phosphoric acid, and of ammonia; and whoever violates this provision, or affixes labels specifying a larger percentage of either of such constituents than is contained therein, shall be punished by a fine of ten dollars for the first, and twenty dollars for the second, and each subsequent offence: to be recovered on complaint before any tribunal of competent jurisdiction.

Sec. 49. Any purchaser of commercial manures bearing such label, and containing less percentage than stated therein, may recover from the seller, in an action for debt, twenty-five cents for every pound of soluble phosphoric acid, six cents for every pound of insoluble phosphoric acid, and thirty-five cents for every pound of ammonia deficient therein.

Sec. 50. By the term soluble phosphoric acid, whenever used, is meant such acid in any form or combination readily soluble in pure water; and by the term insoluble phosphoric acid, is meant such acid in any combination which requires the action of acid upon it to cause it to become readily soluble in pure water.

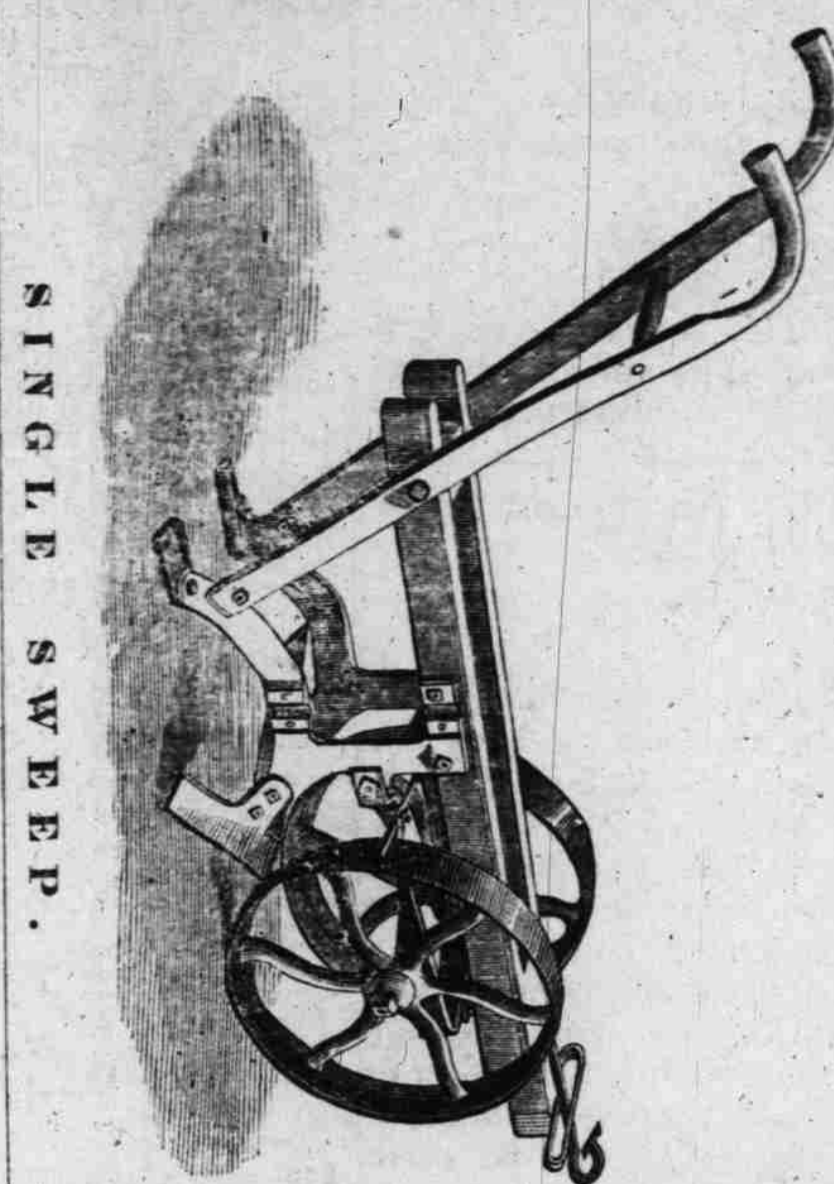
Sec. 51. The three preceding sections shall not apply to porgy chum, nor any manure prepared exclusively from fish, and sold as such, nor to any commercial manure which is sold at a price not exceeding one cent per pound.

Approved January 25, 1871.

The Need Supplied.

Editor State Ag. Journal:

In your issue of the 9th inst., an article appears under the head, "A Plow Needed—Who Will Invent It?" The description of this implement, which you say is required, is precisely the description of a plow already invented and patented: The single sweep attachment of Underwood's Cotton Cultivator.



which may be used in the cultivation of all crops. In speaking of the Dickson sweep, you say that "we have not been able, in using it, to leave a thin layer of frost pulverized earth uniformly spread over the surface of the ground." The single sweep attachment of the D. C. C. & Cultivator was invented with an eye single to this very mode of cultivation.

Your article elaborates a system of cultivation, which is unquestionably the best system, i. e., a cultivation that is so light as to break the ground no deeper than a half inch or three quarters; and that does not turn, nor drag, nor move away, nor pile up the top soil; but that simply stirs the top soil; leaving it uniformly spread out just where the dirt is found. This very system of cultivation which has been endorsed by such men as N. B. Cloud, of Ala., David Dickson, of Georgia, Gov. Hammond, of South Carolina, Dr. M. W. Phillips, of Miss., was in the mind of Mr. Underwood when he invented his single sweep attachment. But the question arises, under what circumstances could this system be put in force practically and economically to the planters of the country.

The single sweep attachment of the Diamond C. C. and Cultivator will *side* the plants in the drill, as well as sweep out the middle of the row. This attachment can be set at any depth desired, and can be held there with the utmost certainty, doing its work with precision.

In attempting to obviate the evil of unsteadiness, the point of the Dickson Sweep is made long so as to run deep in the ground, causing a heavier draft than would otherwise be necessary. Owing to two wheels in front of it, the single sweep attachment of the Diamond C. C. and Cultivator, has a steadiness of motion, that no other sweep ever used possesses; and this is accomplished without any increase of its draft.

There is also a harrow sweep attachment to the D. C. C. and Cultivator which accomplishes the same result; and which has been held to be superior to the Dickson sweep by many intelligent and prominent cotton planters who have seen it in operation. In your columns of the issue of Sept. 13th, 1873, an article from the pen of Mr. Jas. R. Thigpen appeared, which gave this harrow sweep a hearty indorsement.

Very respectfully,
WAYNE.

April 10th, 1874.

Farmers' Meeting in Old Caswell.

At a meeting of the farmers held at Pea Ridge this day, on motion of E. B. Holden, George N. Thompson was called to the chair, and George M. Burton and Monroe Oliver chosen Secretaries.

The object of the meeting was then explained by E. B. Holden. He said its purpose was to enable the farmers and their families to meet together and enjoy themselves in social conversation; and to hear each farmer's method of cultivating their respective crops; the best method of co-operation, and to express their wishes in the social government of our institutions.

George N. Thompson was then called upon who gave us a very interesting speech upon the Grange movement, showing, in the plainest manner possible, the rise and progress of the Grange movement, laying bare all the notions of opposition to the Patrons of Husbandry, and calling upon the ladies and gentlemen to come forward and join in this movement, so that we could be a united and prosperous people, showing that within the circle

of the Grange was the only hope to redeem the farmer from the down-trodden position in which he has so long been confined.

Capt. E. G. Mitchell was then called upon, who expressed his views in a few appropriate remarks.

Capt. Ned Pace, from Danville, Va., being called upon, stated that he could not speak, but if he was not a married man [from the appearance of the pretty ladies present] he would easily know where to find some one to make a speech to.

Mr. Thomas, of Danville, Va., was called upon, who stated that after this year he would cast his lot with the Patrons of Husbandry.

We are happy to state that there were some forty to fifty ladies and gentlemen present who placed their names upon the rolls, and that two new Granges were immediately formed.

There were some four to five hundred persons present, and they enjoyed the good things that were spread upon the tables, and also the company of each other as only farmers and their families could under such glorious circumstances.

The following resolution was then presented by our friend, Geo. N. Thompson, of Leasburg, and adopted:

Resolved, That we the citizens invited, and having participated in the hospitalities of the good ladies and gentlemen of Pea Ridge, do hereby heartily return our thanks for the same, and indulge the hope that the memory of this day will tend to unite us more nearly in the bonds of love and friendship.

The meeting then adjourned and all the farmers and their families departed for their homes, delighted with the day's proceedings.

GEO. N. THOMPSON, Ch'm'n.
GEO. M. BURTON, Secretaries.
MONROE OLIVER, Secretaries.
Pea Ridge, April 11th, 1874.

Nitrogen in the Soil.

[Boston Journal of Chemistry.]

The conditions necessary for nitrification of arable earth are well known—namely, slow combustion of nitrogenous matter presence of a carbonate, and a certain degree of heat and moisture—but the exact relations which exist between these conditions and the conversion of the nitrogen of organic substances into nitric acid or nitrates, are still unknown.

Mr. H. Schloesing has made a report upon some experiments in relation to this point. Two seasons of organic matter and nitrification are still active even when the earth is saturated with water, if any oxygen at all is present. But if all oxygen has disappeared, the soil becomes a reducing agent, and the reverse takes place; the nitric acid is reduced to ammonia or the lower oxides of nitrogen, or in extreme cases nitrogen is set free, very little ammonia being produced. Experiment has proved that earth kept in an atmosphere destitute of oxygen will give off more nitrogen than that contained in the nitrates, part of the ammonia being set free.

The above experiments show how important it is to keep the soil well stirred if we expect vigorous vegetation. In case the soil becomes solid and all circulation is stopped, the oxygen will be soon consumed, and it then commences to lose nitrogen. Most persons regard the stirring of the earth as merely an incidental occurrence in the operation of disposing of the weeds; or if they go any further than that, it is merely that the roots may not have such hard work to get through the soil, and that the rain may penetrate more easily.

These experiments also serve to explain in part the great benefit which is often derived from allowing a field to remain fallow during a portion of the year, care being taken to keep it stirred and exposed to the air.

Measures by Weight.

	LBS.
One bushel Wheat weighs	60
Shelled Corn,	56
Corn on the cob,	70
Rye,	65
Oats,	36
Barley,	40
Potatoes,	60
Bran,	20
Clover Seed,	60
Timothy Seed,	45
Flax Seed,	45
Buckwheat,	52
Blue-Grass Seed,	14
Castor Beans,	46
Dried Peaches,	33
Dried Apples,	24
Onions,	57
Salt,	50

DON'T LEAVE THE FARM.—The *Rural New Yorker* of the 11th inst., says:

Boys and young men who purpose leaving the farm for city employment, should pause before acting—look before they leap. Unless they have places engaged, or a special taste or aptitude for the proposed business, it will be folly to leave home upon an uncertainty—especially the present season, when business is worse than dull, and thousands of competent young men—clerks, mechanics, etc.—are vainly seeking employment. No one—“stick to the farm” boys, for it is the surest and best, as well as the most natural and healthy pursuit.