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THE PROGRESSIVE FARMER.

Has the largest circulation of any family agricultural or political paper published between Richmond and Atlanta.

THE INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

Vol. 13.

RALEIGH, N. C., SEPTEMBER 27, 1898.

No. 34

PUBLISHED WEEKLY

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THE PROGRESSIVE FARMER is the Official Organ of the North Carolina Farmers' State Alliance.

"I am standing now just behind the curtain, and in full glow of the coming sunset. Behind me are the shadows on the track, before me lies the dark valley and the river. When I mingle with its dark waters I want to cast one lingering look upon a country whose government is of the people, for the people, and by the people."—L. L. Polk, July 10, 1890.

EDITORIAL NOTES.

About \$2,500 has now been collected for the proposed monument to Ensign Worth Bagley, largely in subscriptions of \$1 and less.

We very much regret to hear that the publication of the Arena, the famous reform magazine, has been discontinued. It was a power for good.

The editorials, "The cause of Spain's Decline," and "A Citizen's Duties," were crowded out last week, but it is not yet too late to heed the suggestions contained in them.

Don't forget that B. F. Montague, a Democratic lawyer appointed Jim Young to inspect White Blind Institution. When next you hear a Democrat howling "negro domination" call his attention to this. It's a stunner.

At the recent convention of the Populist party of the Ninth Congressional district, Hon. Geo. E. Boggs, of Waynesville, was nominated for Congress without opposition. The Populists of that district made no mistake in this selection.

The popularity of some great men may be slightly guessed at by glancing through the list of recently established postoffices. You will find ten named "Dewey," four named "Sigsbee," four named "Shafter," two named "Hobson" and two named "Schley," while "Sampson," "Simonton" and "Kilgo" have one each.

The Raleigh Post, Chatham Record, Dunn Union, News and Observer are also guilty of gross deception or ignorance in the matter of expenditures by the present administration. Let the readers of these papers watch them. If they correct their written statements, attribute their error to ignorance; if they do not, they must admit it is deception.

In 1892, the Democratic orators made the welkin ring with cries of "Force Bill." Force Bill was on every Democrat's lips and men who were wise enough to see that it was nothing but a political scare crow were said to be bribed or unpatrician. Now that the people can see in its true light, the Democratic orators have another scarecrow "Negro domination." Within less than six years people will see that it also is a mere bugaboo.

It is with pleasure we print this week the very excellent account of the work of Justice Alliance by Bro. W. H. Stallings. We trust that every farmer and every Allianceman will read the article. Why can't men of all parties get together in every farm neighborhood and have such a club? Of course they can. And why would it not do good? Every one knows it would do good. Then why not have it? Can you answer that question?

Just read the following from the News and Observer of August 17, 1892: "President Cleveland appointed a Negro Minister to Liberia. He appointed a Democratic negro to office in the District of Columbia and also appointed another negro to office in Massachusetts." * * It was a matter that did not concern us. He thought it was right to recognize the fact that there were millions of negroes in the country over which he was President. He did

recognize that fact. He thought the Democratic negroes at the North ought to be encouraged. He did encourage them. He thought it would strengthen the Democratic party in the doubtful States at the North where the negroes hold the balance of power to show the negroes that the Democrats were not unkindly disposed toward their race. He did that * * No man truly in earnest in the contest of the masses against the classes will find in his conduct any reason to repudiate him." The News and Observer can stand the negro when he's Democratic. See?

When the Populist Executive Committee found that they were compelled to decline the belated fusion proposition of the Democrats on October 15th, 1896, the News and Observer gave vent to its feelings in big headlines next morning saying:

'FALSE TO THEIR FAITH
"The Populists Prove their Insincerity to Silver—Decides to Stick to the Republicans and Gold."

It also strongly intimated that the Populists had sold out "to the monopolists and British goldbugs," and said that "the men and machines that opposed the sentiment would be crushed." But when the Democrats without excuse, refused the Populist proposition to cooperate on principle, the News and Observer had not a word to say except that "The sun rises this morning on a united Democracy," etc.

If you are not blind, you can see.

The Carthage Blade recently said that Capt. A. M. Clarke, of Southern Pines, had authorized it to say that he would support the ticket put in the field by the Democratic convention of Moore county. Capt. Clarke is out in a card saying:

"I never said so, and I never authorized you nor anyone else to say anything of the kind. Now, sir, knowing some of the gentlemen connected with the Blade to be honest men, and hoping all of them are, I ask you kindly, in your next issue, to publish this, my letter in denial of the above statement in issue of 31st ult."

A private letter from Moore county says: "This is like the statement recently published in that paper that 25 Pops near Carthage had gone to the Democrats. We have asked for the names, but CANNOT GET ONE. Three men in this county, though, have gone back. Two of these have been running railroad excursions and are bought over by the railroads. The other was nominated by the Democrats for county commissioner, a weak illiterate man. We will have some recruits from the Democrats to make up any loss."

A CITIZEN'S DUTIES.

Few persons realize the importance of the ballot—the responsibility that rests upon citizens in choosing the lawmakers of the land. It is a duty that each man owes his fellow men to study the political problems of the day. It is, perhaps, unfortunate that in the matter of voting, as in other things, "no man liveth unto himself," and if your vote elects a bad man, your neighbor who voted against him must bear as much of the evils resulting from his election as you do. For this, and other good reasons, the man who sells his vote should be severely punished. A man has a perfect right to sell his cow, his home, or even his body, perhaps, for such sales as this affect only himself and family. But the man who stifles his conscience and votes, or attempts to vote his fellow men into political slavery for money, is little short of a criminal and should be dealt with as such. And the creature who would tempt his poverty stricken fellow man to vote contrary to the dictates of conscience for money, and the employer who by threats of discharge attempts to do the same thing, should be made to feel and know that American liberty does not give one liberty to harm his fellow man. We hope that the laws for the punishment of such offenders will not be tampered with by our next legislature unless it is to make them stronger and a greater "terror to evil doers."

We believe that every citizen should join one of the three political parties—that one that gives the most substantial evidence of enacting into law the reforms which he believes are needed. Then he should labor to have the best men in that party nominated for office. The best man for office may not be the meekest in appearance or the man who quotes most Scripture.

By the best man we mean the man who if elected will do his country most good. The party boss does not always favor the best man, but it is the citizen's duty to nominate him, even if he has incurred the enmity of the boss by opposing some of his pet schemes. In fact the best way to do is to stick to a good leader, but drop him, as you would a hot potato, as soon as he degenerates into a boss. Steer clear of the party that fails to take a stand; of the party that tries to retain both elements by endorsing one by words, and the other by acts.

Investigate your candidate and the record of your party, also the records of other parties. If it claims to favor free silver, see if it has always voted for it; if it claims to favor the gold standard, see if its Congressmen, are anti free silver; if it says it favors economy, see how its officers act and see if other parties have not saved more; if it claims to favor lower passenger rates, see if it endorses those who "prove their faith by their works."

We are glad to see of late years that people realize that there has been, and is yet too much reckless voting and "too much bending to partisan rule."

First view the different parties from the standpoint of a man and a patriot; then be a Populist, a Prohibitionist, a Democrat, or a Republican, but first be a man and a patriot. We do not believe the Populist party of the State objects to having its record scrutinized and compared with the record of other parties.

Each citizen makes his own choice. Let him do so without prejudice. THE PROGRESSIVE FARMER will stay in the field by the Democratic convention of Moore county. Capt. Clarke is out in a card saying:

"I never said so, and I never authorized you nor anyone else to say anything of the kind. Now, sir, knowing some of the gentlemen connected with the Blade to be honest men, and hoping all of them are, I ask you kindly, in your next issue, to publish this, my letter in denial of the above statement in issue of 31st ult."

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But this citizen who refuses to read and reason wisely refuses to vote. A worse citizen is the brother who refuses to read and reason, but insists on voting, when perhaps he can give no better reason for voting as he does than that his "daddy voted for that party." Very likely that party is as far away from the principles it advocated in his "daddy's" days as the Equator is from the North Pole.

If one of our soldiers in battle should load his gun and then fire in any and every direction and never notice whether he was firing at Spaniards or Americans, Uncle Sam would see that he was severely punished. Yet the man who goes to the polls and votes without having studied the questions, without knowing whether he is hitting friends or enemies, is allowed to go scot free. We insist that he is a dangerous character.

And another word about the chap who can give no other reason for voting as he does than that his "daddy voted that way": Suppose that in some battle with the Spaniards, a soldier from a Northern State had fired into the forces under command of General Wheeler. An officer rides to him and inquires "what under the sun he is shooting American soldiers for," and marches him away for trial, perhaps by court martial. The only defense the soldier gives is this: His father was in the Union army and fought Wheeler and his Confederate cavalry. In shooting at Wheeler he was simply "shooting the way his father did."

It is not at all likely that such a driveling idiot would ever be allowed to fight in American ranks again. And yet are not the poor creatures who "vote the way their fathers did," without regard to merit, just as silly and comparatively as dangerous?

AGRICULTURE.

A MAN WHO DESERVES THE THANKS OF THE SMALL FARMER.

Correspondence of The Progressive Farmer.

Your issue of 13th contains an editorial notice which seems to require a brief statement from me.

The favorable comment on new features introduced into the Farm Department of the Fair might be construed as my work. In justice to the officers of the Society, I write this to disclaim any credit for the new classes and to explain that my name was put at the head of that department by the President, expecting that I might be able to serve the Society in the indicated capacity. My time is pretty fully occupied and it is practically impossible for me to give the time which would be necessary to superintend the work. Therefore I declined to stand as the nominal head, and have suggested the name of the man who really does the work as the one on whom to bestow the honor and credit.

Thanking you for the compliment, and suggesting that the real author of the new prizes be looked up and his name given to the public, I remain, Yours sincerely,
FRANK E. EMERY.

LIME, NITROGEN AND SODA.

Correspondence of The Progressive Farmer.

This is the subject of bulletin No. 47 of Rhode Island Station, written by Prof. H. J. Wheeler.

A large number of experiments conducted at the Rhode Island Station and upon farms in various portions of the State have given every indication that large tracts of land in Rhode Island cannot be made to grow clover successfully by the use of ordinary commercial fertilizers, unslacked lime, wood ashes and some form of lime other than land plaster (gypsum), has been applied. Even large quantities of stable manure, unless applied annually, do not, on certain soils, insure an even stand and a large crop of clover, though such applications do increase it to a marked extent. These experiments in different portions of the State have shown in a striking degree that what is true of clover is also true of timothy and of Kentucky blue grass.

One of the most striking object lessons which is to be seen at the present time is the wonderful effect of lime upon the growth of asparagus and also the superiority of nitrate of soda as compared with sulphate of ammonia as a source of nitrogen for this crop.

The idea should not be gathered from what has been said that all plants are benefited by lime. Watermelons and muskmelons show exactly opposite requirements in this particular, muskmelons being helped by it and watermelons injured. About 150 varieties of plants have already been tested at the station to ascertain their requirements in this particular. A record of the results may be found in the annual reports of this station for the years 1893-97, inclusive.

In 1890 an experiment was begun at the same station for the purpose of comparing the relative effectiveness of like quantities of nitrogen in the form of nitrate of soda, sulphate of ammonia and dried blood. Similar experiments were conducted in a number of different sections of the State. In most instances nitrate of soda superior to the other forms of nitrogen. This was particularly true wherever the acidity of the soil was great.

On a very sour soil, before applying lime to neutralize it, sulphate of ammonia proved poisonous rather than beneficial, and nitrogen in the form of dried blood was less than half as effective as the same quantity in the form of nitrate of soda. Where lime was used in connection with these different forms, instead of all ill effects being observed from the sulphate of ammonia, it became a most valuable manure.

Experiments were also made to determine whether soda could be made to take the place of potash as a fertilizer, as has been claimed by some writers. Common salt is composed of chlorine and sodium, and in that form soda is very much cheaper than potash.

The plants on the plots receiving soda were finer than those on the plots receiving nothing. But a chemical analysis showed that they contained no more soda than those grown on the plots that received no soda. But they did contain more potash.

This proves that the soda acted as lime does; it sets free the potash that is locked up in the soil in compounds

that are not soluble in water, and hence cannot be taken into the sap of the plants.

Soda, therefore, is not a fertilizer, but like lime it renders fertilizers available in the soil more available.

J. L. LADD.

Bay City, Texas.

FATTENING HOGS.

Sweet potatoes have now pretty well completed their growth and should be fed very liberally to hogs. Hardier crops, as peanuts, may be held back for a later period, but potatoes, sorghum and pease should be fed liberally. Pease are included not because they are liable to injury from frost, but because of their richness in protein, or nitrogenous compounds, they supplement the deficiencies in most other foods, and animals thrive most on such mixed rations. As an animal needs a certain amount of each constituent of food in certain proportions, if a food is short on one of its constituents, an animal has to eat an excess of such food to get the proper amount of the deficient substance, and the excess of the other constituents is thus practically lost. One constituent, as a rule, cannot take the place of another. Starch and sugar cannot make muscle. Push the fattening hogs now all they will bear. The weather will be cool enough for them to eat heartily without injury, but not cold enough to prevent their fattening rapidly. There is no better period in the year for fattening hogs than the next six or eight weeks. Do not forget to feed moderately at first any new food; there is always danger of surfeiting, or even worse results, from overfeeding at first—Ex.

TURNING UNDER PEAVINES.

Is it better to turn under peavines whilst green, or after they are mature and dry? asks Southern Cultivator.

This depends on circumstances. If the vines are to be plowed under to enrich the land for a crop to be planted next spring, it is better to defer the plowing until after frost. This is a result reached by experience and experiment. The explanation is not apparent. If the green vines are plowed under they decompose quickly; the nitrates resulting are liable to be leached out by winter rains and lost. So far it is pretty plain sailing. But if the vines are allowed to stand until they are dead, a part of the nitrogen they contained disappears, woody stems which animals will scarcely eat remain—and what becomes of the nitrogen they once contained? Does it escape into the air as a result of chemical changes that develop in the vines, or is it carried down into the soil by rain? In the latter case it would seem likely to be leached out and lost; in the former case it would certainly be lost. When, however, a crop is to be started on the land soon after the green vines are plowed under, such crop can appropriate at once any nitrates that may form and thus no loss ensue. And if enough time is allowed after vines have been plowed under for decomposition to be well advanced, for any heat generated thereby to be dissipated, and the products of decomposition to be available by a growing crop, the practice is an excellent one. The fear sometimes expressed by farmers that acids would form and prove injurious is not well founded. The first acid to be formed is carbonic acid, and unless in great excess it is not injurious. It is a gas and readily diffuses itself through the soil, and if in great excess may escape into the air. The other acids which may form—such as humic and ulmic acids—at once enter into combinations which are not only harmless but beneficial. The most objectionable feature connected with the plowing under of a rank growth of vines is that they loosen up the lower parts of the soil too much for a grain crop, unless the plowing is done sufficiently in advance of the seeding of the grain for the soil to settle and become compact again. Wheat especially demands a rather firm undersoil. Peavines turned under now would allow of such settling before November, which is the usual time for wheat sowing in the cotton States; and the plowing under of peavines as a preparation for a wheat crop is most excellent practice. The vines furnish a good supply of nitrogen, a substance which a wheat crop must have in large quantity. With a heavy crop of peavines plowed under, a wheat crop would need only an application of phosphates; or if the land was light, phosphate and potash.

WHAT A WINDMILL CAN DO AND SAVE.

The Wisconsin Station has kept a year's record of the possible work of a 16 foot geared windmill and what it would cost to do the same work with an engine.

A full statement of all the tests and tabulated records of all results are given in bulletin No. 68, of which the following are the salient points:

Both the velocity of the wind and the work done by the mill were recorded by automatic instruments during every hour of the whole year.

The variable and unsteady force of the wind has always been the most serious hindrance to the use of the windmill as a motive power, and so, in order that the real character and magnitude of this variability in terms of work may be seen for all hours of the day and for all days of the year, the records of the whole year have been brought into a table in such a way that a simple inspection will show just what this windmill was able to do on any hour or day or succession of days throughout the year. The table shows just how frequently and during how long intervals the windmill was able to do no work. It shows when and how consecutively it could do heavy work, and it shows how persistently a moderate amount of work could be done by it. These are the essential facts which the practical man needs to know, and they are in the form which is most readily accessible to him. At the same time the data are in such shape that those who wish to use them for scientific purposes will be able to do so.

The mill used was a geared Aero-motor, with a 16 foot steel wheel mounted on a steel tower 82 feet high.

In the water pumping test the experiment was started at noon on March 6, 1897, and closed at noon of the same date, 1898, and the number of times the measuring tank was emptied each hour of every day in the year is given in table 1, at the close, together with the miles of wind which passed the mill during the corresponding times. The water was raised 10 feet.

The table shows that during the 365 days of the year the mill pumped enough water to cover 79.1 acres of land 12 inches deep, an average of a little over two and a half acres one inch deep every day of 24 hours.

As water for irrigation is usually caught and stored in reservoirs as it comes from the pump, and is applied to the ground about once every 10 days, another table shows the quantity of water for each period of 10 days during the year. From this table it appears that the smallest quantity of water pumped in any 10 days was from July 28 to August 8—enough to cover nearly 10 acres one inch deep. The largest quantity was February 13 to 23—enough to cover 75.1 acres one inch.

During the 100 days from May 29th to September 6th, there was an average of enough to cover 2.3 acres one inch in every ten days. This is the growing season, when water is most needed in Wisconsin. But of course that pumped during the wet spring season might be stored in reservoirs and held in reservation for the dry time.

The mill would not work the pump when the wind had a velocity of less than nine miles an hour and there were 3,531 such hours during the year, so that the pump was at work but 5,329 hours in the year—an average of 14.4 hours out of every twenty-four. But from March 6 to September 1 it ran an average of only 1.4 hours out of every twenty-four, and this is the main irrigation season.

The average horse power developed was a fraction over two.

To test the economic value of the pumping done by the mill a 2 1/2 horse power gas engine was put to running the same pumps and it was found that it cost ninety five cents to run the engine ten hours and in that time it pumped 13,202 cubic feet of water, while the average for the mill was 3,938 cubic feet in ten hours. Hence it cost about thirty two cents to pump as much water with the engine as the mill pumped in ten hours. As the mill ran an average of 13 1/2 hours per day, it would have cost forty-three cents to pump as much water with the engine as the mill pumped each day, or \$156.95 for one year of 365 days.

Tests made in grinding corn with the power furnished by this wind mill showed that when the wind had a

[CONTINUED ON PAGE 8.]