

# SUBSOILING OF LAND

New Piedmont Clay Soils May Blossom as the Rose.

## PROF. NEWMAN GIVES HIS VIEWS

In Response to an Inquiry He Writes Inter-estingly Concerning the Value of Subsoiling.

Cor. Charleston News and Courier. Spartanburg, Special.—While watching a subsoil plough going down into the hard-pan a few days ago it occurred to your correspondent that Prof. Newman could give us some valuable information as to subsoiling and the permanent improvement of lands. He was asked a few leading questions, which he kindly answered.

So well suited is the information given that your correspondent put it in the shape of a Christmas gift to the farmers of the State with the compliments of Prof. Newman. Every suggestion contained in the communication is most valuable to the farmers who have clay lands.

The correspondent can bear testimony to the fact that a pair of mules, weighing 2,000 pounds, will break any of the Piedmont or red clay lands six to ten inches deep according to the depth of the top soil. If there is nothing to turn under there is no need of one plough following another. One team, one hand and one plough will do the work in a most satisfactory way.

COL. NEWMAN'S LETTER.

But here is the Professor's letter:

Clemson College.

Mr. Charles Pet y, Spartanburg, S. C.

Dear Sir: In response to your inquiries of the 11th inst, I have been laboring for thirty years for the promotion of better methods in our Southern agriculture and through this the increase of intelligence and prosperity of our farmers. Your first question as to the necessity of deepening and more thoroughly pulverizing the soil before planting strikes at the root of the matter. The most important thing for the farmer to do is to secure good texture through the agency of thorough tillage. Without this much labor in the planting, fertilizing and cultivating the crop is done in vain. There is an old saying, which is especially applicable to farming, viz: "One bad job makes another." If good texture is not secured before planting we are apt to have poor stands of weakly plants, poor cultivation and small crops.

If the soil is broken only a few inches in depth, and even this much not pulverized, there can be no storage of moisture against a summer drought, but serious risk of surface washing upon rolling lands, since the compact subsoil or hardpan resists the downward penetration of the summer showers, the small amount of broken soil soon becomes saturated, and the water which should sink into the subsoil flows off on the surface. This is the season for deep ploughing and subsoiling, while Jack Frost, the best pulverizer, is rendering efficient aid. Walk over the fields now and observe the mellow condition of the surface, and notice that the clods which were left through poor tillage last spring grumble under the foot. The surface being pulverized by the frost presents little resistance to the plough, and hence the same team can pull the plough one or two inches deeper than it will be able to do after the baking rains and drying winds of March.

One or two inches of the subsoil may be turned up now with advantage, since the frost will pulverize it and mingle it with the soil. If this is done in spring the portion of the subsoil turned up will bake into clods and remain so during the summer.

Every tiller of the soil should learn as his first and most important lesson the value of a deep soil, thoroughly pulverized, to admit a free penetration of the air and circulation of moisture, rendering the penetration and multiplication of the absorbing root surfaces possible. This simplifies and facilitates all subsequent operation in producing the crop. There is another old saying which is applicable here, viz: "Thorough preparation is half cultivation."

Thorough preparation and shallow cultivation should be our motto.

### WHAT FERTILIZER IS NEEDED.

As to your question about the "amount of phosphoric acid and potash is the first ten or twenty inches of our Piedmont clay?" I have no source of accurate information. Prof. Bailey, in "The Principles of Agriculture," says: "Roberts calculates from many analyses that in average agricultural lands the surface eight inches of soil on each acre contains over 3,000 pounds of nitrogen, nearly 4,000 pounds of phosphoric acid and over 17,000 pounds of potash." Much of these essential elements of plant food is locked up in insoluble compounds. By thorough tillage, admitting the oxygen of the air to which the fine particles of soil are exposed, by allowing an abundant absorption of moisture to dissolve the mineral plant food liberated by the chemical action of the oxygen upon the insoluble compounds, and by incorporating organic matter into the soil there will be less need of artificial fertilizers, and those applied will prove more efficient.

### THE VALUE OF PEAVINES.

3d. "The value of peavines as a fertilizer" and "comparative value of roots and stubble and the vines." Analysis shows that a moderate

crop of pea vines contain fertilizing ingredients as follows:

	Pounds.
Nitrogen in the vines per acre.	115.34
Nitrogen in roots and stubble per acre.	7.70
Total per acre.	123.04
Phosphoric acid in vines per acre.	39.05
Phosphoric acid in roots and stubble per acre.	6.29
Total per acre.	45.34
Potash in vines per acre.	85.75
Potash in roots and stubble per acre.	13.12
Total per acre.	98.87

It must be remembered that pea vines gather the phosphoric acid and potash from the soil and subsoil, so that we can only credit them with that part of their contents of nitrogen which they get from the air. We are no means of knowing how much they get from that source.

### WHEN TO STOP SUBSOILING.

4th. "How late in the spring should subsoiling continue?" Fall and winter are the proper seasons for subsoiling, but it may be done in spring, provided the subsoil is not brought to the surface. It can, however, be much more easily done at the proper season, but better late than never.

Only lands which have either a compact subsoil or a hard pan are benefited by subsoiling.

5th. "Should land be turned when there is nothing to be turned under?" No; but good farming will not have lands in this condition. If lands are left naked during winter after clean cultivation they will be injured by the loss of nitrogen and by surface washing. Such lands should have rye or some other cover crop sown upon them in the fall. This cover crop will prevent the surface washing, and take up the nitrates and hold them, to be turned into the soil in the spring.—J. S. Neman, Professor of Agriculture,

## OFFICIAL POPULAR VOTE.

### How McKinley's Popular Majority Stood in 1896 and 1900.

Returns from the forty-five States of the Union, gathered from official sources show that President McKinley's defeat of Bryan was far greater than in 1896, when his plurality was only 601,854. In 1900 the Republican plurality over Bryanism was 864,816. In 1896 Mr. McKinley's majority of the total vote of 13,923,378 was 286,180. This year it is 479,264 of a total of 13,967,280.

Bryan's popular vote for this year was 6,358,446, a falling off over 1896, when his popular vote was 6,502,925, of 144,479.

Mr. McKinley's popular vote in 1896 was 7,104,779 and this year it is 7,223,272, an increase of 118,493.

The following table, compiled from official State returns, shows the vote on the two leading tickets:

	McKinley.	Bryan.
Alabama	53,669	96,268
Arkansas	44,700	81,142
California	164,755	124,935
Colorado	93,072	122,733
Connecticut	102,572	74,010
Delaware	22,339	18,558
Florida	7,499	26,007
Georgia	35,035	91,700
Idaho	27,198	25,415
Illinois	597,966	501,975
Indiana	336,063	209,584
Iowa	307,813	209,468
Kansas	187,881	152,077
Kentucky	226,801	234,539
Louisiana	14,233	53,671
Maine	65,435	36,822
Maryland	136,185	122,238
Massachusetts	239,147	157,016
Michigan	316,269	211,585
Minnesota	190,461	112,901
Mississippi	5,753	51,706
Missouri	314,093	351,913
Montana	25,373	37,146
Nebraska	121,835	114,013
Nevada	3,303	6,322
New Hampshire	54,798	35,489
New Jersey	221,850	164,839
New York	821,992	678,386
North Carolina	132,997	157,736
North Dakota	35,891	20,519
Ohio	543,918	474,882
Oregon	46,294	33,067
Pennsylvania	712,665	424,232
Rhode Island	33,784	19,812
South Carolina	3,579	47,233
South Dakota	54,539	39,544
Tennessee	125,362	147,691
Texas	130,641	207,432
Utah	47,093	44,939
Vermont	42,083	12,849
Virginia	1,7,151	14,617
Washington	57,456	44,833
West Virginia	119,706	98,627
Wisconsin	265,866	159,235
Wyoming	14,482	10,164
Total	7,223,272	6,358,446

This year the Prohibitionists polled 207,368 votes; the People's P. A. Y. 50,192; Social Democrats, 94,552, and the Social-Labor ticket, 33,450. In 1896 the Gold Democrats got 133,424 votes; Prohibitionists, 132,007; Social-Labor, 26,274, and Nationalists, 13,969.

### A Sailor's Tragic Death.

Savannah, Ga., Special.—The Norwegian bark Piazza, which arrived at quarantine Tuesday, brought the body of Fearand To'e on, a young sailor, who on Friday fell from the mizzen rigging during a gale at sea and was instantly killed. His head struck a deck house and the skull was crushed. His father, the ship's carpenter, witnessed the fatal fall. The body was buried here, wrapped in a Norwegian flag.

# ARP STUDIES HAZING

Developments at West Point Watched by Bartow County Men.

## HE SEES NO REASON FOR

Military Institute Should Be Abolished if Hazing Isn't Stopped, He Says.

### Arp Studies Hazing.

This hazing business at West Point perplexes me. I've been trying to philosophize upon it and a reason for it, but cannot. It is the most brutal and senseless thing that young men calling themselves gentlemen ever perpetrated. The evidence already submitted has shocked the nation, and if it cannot be stopped the nation is ready right now to abolish the institution. It is a disgrace to humanity. But what concerns me is to find a plausible reason for it—an excuse or a palliation. The hazers say that it is to try a young man's metal, his courage. That is false, of course, for it requires no metal or courage to stand guard over a dead rat or march alongside a turtle or terrapin. The whole course of treatment is one of devilish cruelty and insanity. We are told that some of those hazers were considered very good, kindhearted boys at home before they went to that lunatic asylum, and hence it must be that association has deranged them like it did for awhile at Yale and Harvard and other northern colleges. A crowd of boys away from home influence will do what no one boy will wish or dare to do at home or abroad. I had a dog once who was faithful and kind—a good watch dog and fond of my children. I owned a flock of sheep and he protected them, but when other dogs from the neighborhood came after him in the dead hour of night and gave the sign he would go with them two or three miles and help to kill a score of sheep and be back at his post on the piazza by daylight. I would not believe it for a long time, but the neighbors came and found wool in his teeth and he had to be killed. I reckon that's what the matter with those good boy hazers. They have got wool in their teeth and to my opinion, they ought to be treated like the Frenchman did his dog. He wanted to break him of sucking eggs, so he hung him by the hind legs to a limb and let him swing for a day or two. A neighbor said: "Why don't you hang him by the neck and let him choke to death?" "No, sare," he said, "me hangs heem by de legs to geve heem time to tink vat a tam rascal he vas." Those hazers ought to be hung by their hind legs until they had time to repent. The catalogue of cruel and ridiculous things that those cowards inflict upon a freshman is fearful. Some of them are unfit for publication. I say "cowards" because it is a maxim that a cruel man is a coward. If they really wished to test a young man's metal or courage why don't they shut him in a room and go in one at a time and fight him fist and skull. They are cowards, that's all. They wouldn't fight a Philippine hand to hand. They will graduate cowards and smell the battle from afar, and let the privates do the fighting. They are of the same breed as General Miles, who put the manades on Jefferson Davis and tried to lie out of it. He won his spurs in Cuba by getting on top of a hill and crying, "Beef, beef, beef." He reminds me of Patrick Henry's great speech during the first revolution, in which he caricatured a man for crying beef, beef, while the patriots were fighting for independence. I have but little patience with the modern West Pointer. General Otis is a fair sample. He whipped the Filipinos every day before the election. Pay and promotion is their sole ambition. They are a stuck up swell set and would establish a military monarch if they dared. I see that some fellow is defending General George C. Thomas and "Black Jack" Logan in a New York paper. Well, I know all about them. I have now in my possession a letter written to me by Thomas in which he denounces us all as traitors and guilty of treason and says that treason embodies all the crimes in the decalogue. A dozen of our Rome boys and girls had improved a tableau performance in the city hall to raise a little money to pay for replacing pulpits and pews in the city churches. The sacrilegious vandals had gutted the churches and used the pews for horse troughs and the churches for storage o. corn and oats. One of the scenes in the tableau was a battlefield after the battle and an old confederate flag was lying down on the floor. For this they were all arrested and the play broken up. As I was then the mayor of the poor little war-torn town I wrote a respectful letter to Thomas asking for hair release, and asserting that no disrespect was intended. He condescended to please them, but scarified us and all the south in contemptuous and contemptible language and warned us that a rebel flag was the most odious emblem of treason and must not be exhibited in public nor harbored in private. Well, the Light Guards have got the old banner yet and show it when they please. I had not forgotten that in 184 two cavalry regiments were organized and added to the United States army by Jefferson Davis, the secretary of war, and that Thomas was a major in one of them and of the

fifty-one commissioned officers thirty-one were from the south, and of these there were twenty-four who joined the confederacy. Among these were Robert E. Lee, Albert Sidney Johnston, Joe E. Johnston, Hardee, Vandorn, Kirby, Smith, Hood and Fitzhugh Lee. What a galaxy of traitors was there. But Thomas was not among them. If there was any treason he was a traitor to his state. As for Logan, let the old veterans of Vincennes tell. Saw a recent letter from one of them narrating how he tried to raise a regiment in Kentucky to fight on our side, but could not get but three sickly companies and gave it up. But I forbear. Let me stop a while and give my indignation rest. It was not raining I would go out and dig some or chop some wood. God-on-'em. Confound 'em.

But I was considering this hazing business—this drinking tabasco and pepper sauce and going through contortions until the poor victim faints or has convulsions. The dictionary calls it physical persecution, and George W. Curtis, the editor of Harper's Weekly, denounces the whole system as a brutal and contemptible denial of fair play. And yet it is allowed and winked at by the officers in charge and no doubt the investigation of the Booz case will all blow over and end in smoke. I wonder if our southern cadets join in it. We have never had any hazing in southern colleges that I know of. I remember when the sophomores and juniors used to play some little tricks on the freshmen, but they were not cruel or dangerous. I remember when young Whately came to Athens from Talladega, Ala., with his father's wagon and camped out at night while on the journey. He was a country boy and had on a suit of home made jeans outside and plenty of grit inside. One evening after study hours the sophs and juniors combined to scare the freshmen who were tired and green and homesick, and so one big fellow pretended to take laughing gas or ether and after sucking a while on a handkerchief he got maniacal and threw his arms about in a wild frenzy and distorted his countenance—suddenly he drew a big, long butcher knife from his bosom and the knowing ones shouted, "Run, boys, run; he's got a knife," and they all ran except Whately. He boldly stood his ground and seized a good sized stone and as the crazy boy got within a few feet of him and was brandishing his knife young Whately let fly with the stone and knocked the breath out of him. We thought he was dead and a doctor was sent for in a hurry. That was the last trick played on the freshmen while I was in college. Whately never put on any airs about it, but he took first honor all the same and became colonel of a regiment during the war, and, I think, was killed in battle. I wish we had some southern Whatleys at West Point.

After all, it is the officers of an institution who mold the character of the boys and as that man Mills can't mold it he ought to resign. I was greatly gratified to read that President Hardy, who is at the head of the Agricultural and Mechanical college in Mississippi where there are 400 students, made a request of them some months ago that they would quit smoking, and all of them said "yes, we will—we will do anything you ask us to do" and since then not a cigar or cigarette has been seen in that splendid institution. Those young men are gentlemen, and we are proud of them.—Bill Arp in Atlanta Constitution.

### Telegraphic Brics.

The recent capture of Helvetia, in the Transvaal, was due to the fact that the British were surprised.

The common council of Omaha, Neb., has offered \$25,000 reward for the arrest of the Cahany kidnapers.

Mrs. Carrie Nation, the Wichita, Kan., temperance crusader, has been caught in quarantine.

The strike of stemmers of the Continental Tobacco Company, at Louisville, Ky., has assumed serious proportions and is expected to spread.

### Steamer Wrecked.

St. John, N. F., By Cable.—The crew of the British steamer Ivydene, Capt. Milburn, from Hamburg, December 15, for Wilmington, N. C., which went ashore Tuesday night, during a storm at La Marche, arrived here Thursday afternoon. One man was drowned. Twenty of the 27 survivors were badly frost-bitten. The steamer broke up Thursday. Nothing was saved. Most of the crew are Italians or Swedes and they were panic-stricken.

### New York Gambling Houses Closed.

New York, Special.—The Evening Telegram says: "With the end of the century Mayor Van Wyck took steps towards putting an end to gambling as a result practically every gambling resort in this city is closed. The mayor ordered that this be done and Chief of Police Devery promptly obeyed the mandate. He issued instructions to his captains Monday night and the keepers of the various establishments were given the tip that this time there was to be no fooling."

### A GREAT FAVORITE.

She—The rarest fish, I believe, is the ribbon fish. It is an inhabitant of the great depths of the ocean.

He—I suppose the mermaids are very partial to this specimen.—Yonkers Statesman.

A Valuable Invention. According to the Electrical World W. S. Burnett and W. H. Goodhal, of Milwaukee, Wis., are the inventors of a device which permits the calling of any subscriber on a party telephone line without disturbing the other subscribers on the same line. The apparatus is called the multiplex telegraph. It is said to be possible by the use of the new device to maintain on one circuit telephone service, station signalling on railroads, police and fire signalling, messenger service, etc. A number of submarine mines may be placed in circuit and any of them exploded without affecting the others.

### THE FATE OF THE PICTURES.

When Marius Dahlgreen, the artist, left for Nome some time ago to seek his fortune in the gold fields he decided to take a varied supply of paints and canvas with him, so that, should the nuggets fail to materialize, he might put in his time profitably immortalizing the picturesque scenery of the new mining camp with his brush. These dreams were shattered, however, when Dahlgreen's party landed at Port Clarence, for on attempting to put together a small boat with which they had provided themselves, it was found that the dishonest—or only careless—shipbuilder had forgotten to include the white lead in the boat's fixings. How to caulk the seams without it at 80 miles' distance from Nome civilization was the question. At last the Goth of the party suggested the artist's paintbox, and with tears the sacrifice was made, the "landscape of the future" decorating the insensate seams of the little craft. It was perhaps owing to this treatment, however, that the tiny boat escaped wrecking during a 28 days' journey through the recent terrible storms from Port Clarence to Nome.—Argonaut.

### SODA WATER FOUNTAIN IN ENGLAND.

It would be difficult to find a more peculiar American institution than the soda water fountain, or one which would act as a more immediate and powerful reminder of the scenes with which he is familiar in his native land than the marble-faced, many-fauceted and nickel-resplendent structure which is one of the numerous devices by which the American citizen tempers the fierceness of the periodical "hot wave." Hence the introduction of the soda water fountain into Great Britain, as referred to in a recent report by the American consul at Birmingham, may be regarded as a notable instance of the interchange of ideas and customs between this country and Great Britain which is growing more marked every year. It seems that in a window or a "chemist shop" in Birmingham there was exhibited during the summer months a sign advertising various sodas and phosphates. The proprietor, who is quoted as "an enterprising man who is ready to try new things," has proved his fountain to be a striking success. It seems that an American soda fountain syndicate has taken up the matter of these hot weather necessities in England, and a number of cities now have fountains in successful operation.

### The Resemblance.

Jackson—The baby's getting more like its mother every day.

Johnson—That so?

Jackson—Yes; it's learning to talk.—Indianapolis Sun.

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