RALEIGH, N. C., APRIL 14, 1891.

CIRCULATION.

The actual circulation of Volume V, which closed with the issue of February 17th, 1891, was as follows:

February 18, 1890, 12,840 | August 12,240 12,000 Sept. 10,800 October Decemb'r 6, 1891, 18,240 January 13,800 February 3, " August,

First 6 months, 307,080 Second 6 months, 458,160 Making a total circulation for the year of 765,240; averaging for 52 successive issues, per issue, 14,716, and showing a net increase for the year of 5,400, or more than 113 per week.

The above statement is taken from the records kept in the office of THE PROGRESSIVE FARMER, and is correct to the best of my knowledge and belief.

J. W. DENMARK, Business Manager.

I am Book-keeper for Edwards & Broughton, Printers and Binders, Raleigh, N. C. The press-work on THE PROGRESSIVE FARMER has been done for the past three years by Edwards & Broughton, and I have kept account of the same. I have compared the above statement with the account I have kept, and find it tallies throughout, T. J. Bashford. and is correct.

Personally appeared before me, W. T. Womble, Notary Public, J. W. Denmark, Business Manager of The Pro-GRESSIVE FARMER, also T. J. Bashford, Book-keeper for Edwards & Broughton, and make oath that the statements contained above are correct to the best of their knowledge and belief.

In witness where of, I have hereunto set my hand and affixed my notarial seal of office this day, February 26th, W. T. WOMBLE, 1891.

Notary Public. NOTARIAL SEAL

EDITORIAL NOTES.

The New York Herald begs the playgoes of that hopeful village to not shoot the theatrical managers. For the life of us, we can't see any good ground for this plea.

It is now claimed that New York is the one city nearest heaven. We are not surprised. Successful contrasts cannot be instituted between objects far apart.

Mr. Parnell has been rebuked in Ireland a second time within the last few days. It does now really seem that Ireland is determined to repudiate Parneil. If the vague hope of such a result should be made a certainty, there would be an immediate brightening of the prospects of Home Rule for the Green Isle.

A New York contemporary devotes its leading editorial in a late issue to the subject of The Emancipation of Wives. Great Scott! Has the Empire State of New York slipped clean off the map of the United States? We can tell our New York friend that wives have been emancipated hereabouts, for certain. What is wanted in this part of the American Union is a society, or something, for the emancipation of husbands.

IT is stated that four of the nine men killed in the riot the other day in Pennsylvania were subjects of the Austrian a satisfactory member of the English Empire. That power being a member with Italy of the Triple Alliance, the killing of those men may have an unfavorable effect upon the negotiations but warmly approve of the healthful now going on between Mr. Blaine and | public sentiment in England, which the Italian Foreign Office. It seems insists that an impure man-a dethat it wil not take much to fan the feeling of irritation now felt in Italy chastity of women-cannot be fit to into a veritable flame.

is only conjectural. It is by no means | taken in regard to Mr. Parnell's leadercertain that the President sent for him | ship of the Irish party. It is said that to see if he could get him to corner the there is not a single constituency in sentiment in favor of the McKinley Ireland which Mr. Parnell can either bill, so that he (the President) might persuade or bully into an endorsement be able to use its whole immense weight of his conduct in the O'Shea scandal. in the next National Republican Convention. It is not known to be true repentance, but that they do condemn that the President said anything about his impudent refusal to respent at all.

borrowing money from Mr. Gould to put the yawls and canoes of the United States Navy into a condition to blow the armoured ships of Italy out of the water, if that somewhat hot-headed nationality does not make up her mind is the best fertilizer for the grape?" As to behave herself. It may be that the well might one ask What is the best spring of 1883 but no fertilizer was President sought to avail himself of the benefit of Mr. Gould's knowledge of the power of water to increase the amount and value of public securities, with a veiw to replenishing the United States Treasury with the means to enable the next Congress to pass an additional pension bill. Any how, Mr. Gould has visited the President; and, as we said, the object of his visit is wholly conjectural.

DIPLOMATIC language is a queer affair. The use of vigor in it is never indulged under any circumstances. The representatives of two great countries meet and discuss matters of the gravest importance in the use of the most high-sounding terms of compliment. Diplomatic correspondence is the dreariest correspondence to be met with upon this mundane sphere. What a relief it would be to see a few clear affimatives and negatives interspersed amongst the dreary platitudes of diplomatic speech.

On the 2d inst., at Mount Pleasant Pennsylvania, a most terrible riot occurred. Nine men-all foreignerswere shot to death in a few minutes. their interests require them to do so. But men who strike have no right to honest, law-abiding working people, and we hate the mean spirit that treats laboring men as bond men and slaves. But we have no sympathy with laboring men who mob and abuse their felwere unnaturalized foreigners, puts fearful emphasis upon the growing demand in this country for some conservative and merciful restrictions States. Laboring men must learn that such transactions as this we are writing of tend only to delay the time when they will be able to get all their

News comes over the water, which furnishes striking illustration of the truthfulness of the old, old saying, that the way of the transgressor is hard. Sir Charles Dilke Bart. was found in London one morning, some six years ago, destitute of any reputation for gentlemanly purity. He stuck to his place in Parliament until all his friends went away from him and left him in social and political solitude. He then went into retirement, where he has remained until lately. He has now succeeded in getting an English court to give him a certificate of character, and has asked to be returned to Parliament. News, however, comes that when he returns to Westminster furnished another example of the impossibility of a man being accepted as Parliament whose private life is bad. public life in other respects, we cannot stroyer of homes and the enemy of the legislate for a free, pure people. All praise is, also, due to the Bishops and of the Llandes or sand barrens to the heaviest growth. Mr. Jay Gould has been to the other members of the Catholic clergy White House. The object of his visit in Ireland for the stand they have We understand that the Irish clergy do not deny to Mr. Parnell a place of

FERTILIZER FOR FRUIT.

BY GERALD MCCARTHY, N. C. EXPERIMENT STATION.

The question is often asked, "What | standard row of 100 vines. medicine for a man? It all depends given that year. The growth over the upon the circumstances of the case.

greatly benefited by potash and in a of green wood produced per row of 100 scarcely less degree by phosphoric acid. On poor soils nitrates in small doses will prove advantageous, but too much nitrates are apt to produce an nitrogenous, (2) phosphatic, (3) potassic, excessive growth of soft wood at the (4) calcareous and magnesian. Group expense of quality of the fruit and 1 included the following forms: renders the vines more liable to frost bite and rot.

For most vineyards in red clay soil a

fertilizer composed of fine ground raw bone meal and muriate of potash in about equal parts may be used to good advantage and from 200 lbs. to 2,000 lbs. per acre of the mixture may be applied. Sow the fertilizer broadcast in the spring, and after the crop has been gathered, or about August 15th, plant the space between the rows in crimson clover, Trifolium incarnatum. This clover will quickly take possession of the ground and keep down weeds and weedy grasses. It will absorb and utilize the fertilizer left by the vines, and by drawing off some of this fertilizer will cause the canes to ripen their wood early and thus escape The fighting was between the guards early frosts. Besides these services at one of the coking plants and a body | the clover will draw free nitrogen of striking miners. There are conflict- from the air and from it produce niing reports of the affair. But the trates for enriching the soil. Usually truth seems to be that a body of some a good cutting of clover can also be five hundred miners attacked the had by November 1st, and it is advised Frick coke works to intimidate the that this be taken off for feed. The men who were working there. These clover will sprout again from the butts men were ordered to halt. They re- and will continue to grow through the fused to do so, and the guard fired winter, furnishing a heavy growth to with the result stated above. We be- be plowed under in spring. This green lieve it is the clear right of laboring | manure will supply all the nitrates the people in this country to combine for | vines need. Only phosphates and potthe protection of their interests against | ash need be supplied in commercial fereither individual or corporate injus- tilizer. The more of these we give the tice. We also believe that laboring | soil the heavier will our vines yield men have the right to strike, when and the heavier will be the crop of clover we may cut in the fall and the crop we plow ander in the spring. interfere, by violence, with other men | Usually the fall cutting of clover will who are willing to work. We are in pay for the phosphates and potash put fullest sympathy with all classes of on the land. We may thus enrich our vineyards at practically no expense. Where the vineyard is worked with foresight, energy and skill, both in producing and marketing the crops, the greater the quantity of fertilizer given, low-laborers for working for any wages up to 2,000 lbs. per acre, the greater they may choose to take. The fact will be the profit. But to get any profit that all the men killed in the late riot from fertilizers we must protect our yines from fungous diseases and noxious insects. The spraying pump has now become as much a necessity in the vineyard and orchard as is the upon foreign immigration to the United | plow and pruning knife. The subject of spraying can not be dealt with in this paper. The N. C. Experiment Station has now ready and will soon publish a Bulletin on this subject which will be illustrated by cuts of apparatus and diseased vines and trees. This Bulletin will be sent free to all names on the Station mailing list and to

others upon application. An attempt has recently been made in France, under the auspices of the French Government, to discover by a practical field test under what forms different fertilizers act most effectually upon the growth of the vine. This experiment was undertaken by the eminent viticulturist, Prof. M. U. Gayon. and the results, though incomplete, are of great interest and value to vine dressers everywhere. Subjoined is given a translation and synopsis of Prof. Gayon's report which appears in the Annales de la Science Agronomique he will find himself in the same terrible for 1890. While it must be remem social issolation under which he went | bered that the facts and figures given down six years ago, Mr. Parnell has are fully applicable only to the particular field and species of grape experimented with, yet as the composition and fertilizer requirements of the vine are much the same everywhere, Whatever we may think of English this experiment contains a lesson for of wood, but nitrate of soda produced American as well as for French grape very nearly as much, and for several

In order to escape the perturbations which would have been caused by the phosphate (bone meal) produced the Phylloxera and the remedies employed | heaviest growth. against this pest Prof. Goyon located his experimental vineyard in the midst | potash (hard wood ashes) produced the Southwest of Bordeaux. The soil of at a depth of from 18 to 24 inches a of lime was next in efficiency. water-tight and rock-like bed of quartz grains cemented together by organic pines for about 30 years.

vignon, the best red wine grape of importance:

France. The vines were planted in parallel rows of something above 100 vines to the row. The numerical results were in all cases calculated for a

The vines were first planted in the whole vineyard was very uniform but Like all our best fruits the grape is extremely feeble. The average weight

vines was only about 2 ounces. The fertilizers first applied in 1884 were divided into 4 groups, viz: (1)

- 1. Nitrate of soda.
- 2. Nitrate of ammonia.
- Chlorhydrate ammonia. 4. Sulphate ammonia.
- 5. Azotine.
- 6. Dried blood. 7. Torrified leather.
- 8. Nitrate of potash.
- 9. Phosphate of ammonia.
- 10. Peruvian guano. The second group included the folwing:
- 1. Mineral phosphate. 2, Pulverized bone ash.
- 3. Acid phosphate of lime in aqueous
- olution.
- 4. Mineral superphosphate.
- 5. Bone
- 6. Precipitated phosphate. 7. Phosphate of ammonia.
- The third group included the following kinds, viz:
- 1. Chloride of potash.
- 2. Sulphate 3. Carbonate in aqueous so-
- 4. Sulphate 5. Sulpho-carbonate ammonia in
- ery dilute solution. The fourth group included the follow-
- ing kinds, viz:
- Carbonate of lime.
- 2. Sulphate Chloride in aqueous so-
- Carbonate of magnesia.

5. Sulphate

Before the fertilizers were applied samples were drawn and chemically analyzed and their contents in the active fertilizing principles determined. From the results of this analysis was calculated the quantity of the different forms necessary used to supply each plant with exactly the same quantity of the active elements. The quantities required were put up in packets and bottles—one for each vine and taken together into the field on April 8, with a force of hands sufficient to complete the work of applying the fertilizer in one day. To apply the fertilizers the earth was scraped away from the base of the vines to a depth of 1 to 11 inches for a radius of 2 to 3 inches around each vine. Upon this space the fertilizer was scattered by hand as evenly as possible and the soil

replaced. The fertilization was repeated in 1885, each vine getting the same kind of fertilizer, but in most cases twice the amount it received the previous year. The fertilizer was again applied in 1886, the year when the vines were to bear their first crop of fruit, but unfortunately a series of disastersfrost, hail and drought followed upon each other and so damaged the vineyard that no more trustworthy data could be secured and the experiment was therefore brought to a premature end. The facts given as to the effect of different fertilizers apply therefore only to the vegetation or woody growth of the vine.

The following were the actual quanities of the active fertilizing principles given to each vine each year, viz:

3. Potash.....

Of group 1. (nitrogenous) torrified

leather produced the heaviest growth reasons is to be preferred to the leather. Of group 2. (phosphatic) precipitated

Of group 3. (potassic) carbonate of

Of group 4. (calcareous and magnethe Llandes is a nearly pure, white sian) carbonate of magnesia produced sand, porous at the surface but having | the greatest amount of wood. Sulphate

Prof. Gayon concludes, therefore, that for a nearly sterile soil, or where matter. The field selected had been in all the mineral elements of plant food has to be supplied, an efficient fertilizer The grape used by Ptof. Gayon in | for the vine must contain the following his experiment was the Cabernet au- ingredients given in the order of their

- 1. Precipitated or mineral phosphate (bone meal).
- Carbonate or sulphate of magnesia. 3. Carbonate of potash (unleached reform. hard wood ashes).
- 4. Nitrate of soda or organic nitrogen. 5. Sulphate of lime (gypsum).

The above is therefore the theoretical formula for a grape fertilizer, but prachave ample of some of these minerals. found. By varying the quantity, the appear.

date the effects of different fertilizers | so much talk of fear about negro rule upon the chemical composition of the in eastern Carolina, and when the vine, M. Gayon had portions of the negro wants to emigrate they have a wood from all rows analyzed during law passed taxing emigrant agents both years. The growths of all the \$1,000. If I was living down east berows, receiving no fertilizer, were con- fore I would be so inconsistent I would solidated and an average of the whole | help the negro off so the whites could analyzed. From these analyses M. Gavon found

1. That, as compared with vines grown without fertilizer, nitrogenous and phosphatic fertilizers had no appreciable influence upon the relative assimilation of different fertilizing sub-

stances.

2. That the potassic fertilizers diminshed the amount of nitrogen and increased the amount of potash and called to an editorial item that appeared magnesia assimilated by the vines, and | in The Progressive Farmer a few therefore potash facilitates the fixing of mineral matter in the tissue of the plants, and as a consequence promotes the early maturity of the wood.

3. That calcareous fertilizers favor the assimilation of phosphoric acid and hinder that of all the other fertilizer substances.

4. That magnesian fertilizers act in favoring the assimilation of mineral

The actual amount of nitrogen, phosphoric acid, potash, lime and magnesia given to 100 vines in each year was as

. Ounces. Ounces

The actual amount of each of the above substances recovered in the growth of 100 vines was for each year

Ounces. Ounces. Taking phosphoric acid as the term

of comparison, the amounts of fertilizer actually assimilated by the vines were proportional to-

Phosphoric acid......1.00 Prof. Gayon did not attempt to de-

termine whether the portion of the fertilizer not recovered in the woody growth remained fixed in the soil or was washed away by rains. Judging from what we know of the behavior of fertilizers in the soil it is very probable that nearly all of the unrecovered nitrates were leached out of the soil, but that most of the phosphate and a large part of the potash remained behind and might have been utilized another year or by a catch crop of clover.

Practical grape growers will be interested in noting the very small portion of the fertilizer given to the land was recovered in the wood. It must be remembered, however, that these vines produced no fruit during this exbeen recovered.

The great lesson taught by these figures is that the grape grower should endeavor by growing a crop of clover in the vineyard during fall and winter, to hold the fertilizer in the soil. As already stated, for North Carolina, on well drained loamy soils, the best plant to use is Crimson clover. If the soil is heavier or inclined to be moist, the ditions, locally, nationally, and inter-Winter vetch will give better results. One or the other of these plants should be used in every vineyard and orchard.

WINSTON, N. C., Feb. 12, '91. Mr. EDITOR:-I write to tell you some of my likes and dislikes.

I like the Alliance and its principles. I like all true Alliance brothers who will forsake party and demagogues for men of worth and honor and principle. I like a government where the voice of the people rules and where all officers are elected by the people. I like con-

sistency, truth and righteousness. like reform papers that will stand firm for the right and oppose all enemies of

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I dislike not having a Railroad Commission before this time. I dislike Vance's re-election. I dislike THE Pro-GRESSIVE FARMER saying Vance's last letter to Carr was satisfactory. I distically, vineyards are never planted like the harm done to the Alliance by upon sterile sand, and most soils will Vance's re-election and The Progress-SIVE FARMER backing down on Vance. This can be satisfactorily shown only I dislike the present county governby practical experiment with fertilizers | ment system where the bosses rule and upon each particular field. The above not the people. I dislike to see a sot formula can be used to start with. By Democrat county superintendent omitting one of the ingrediedts in each | elected for life by a set of Democratic different trial, those ingredients the magistrates, who are appointed by the land stand most in need of will be legislature, who know not whether the people are pleased or displeashd with amount most profitable to use will then | their appointments. I dislike 8 per cent. as legal rate of interest. One To complete the study and to eluci- per cent. is enough. I dislike to hear have a majority at the polls. I like all the Alliance has done (especially Kansas's glorious work in electing Judge Peffer, an Allianceman), except its electing Vance and Gordon.

> Respectfully, S. A. HAUSER. A CORRECTION.

MR. EDITOR:-My attention has been weeks since in reference to Republican Alliancemen, not being permitted to attend a certain caucus. Being in possession of the facts, I think it my duty to set the matter right. The caucus referred to was held the afternoon of January 6th and was for the purpose of determining on what course the Alliance members of the General Assemmuch the same as potassic fertilizers in | bly, who would attend the Democratic caucus that night, would pursue. Therefore, it was not an Alliance caucus, but a caucus of certain men who had to vote in a Democratic caucus in a few hours. So it was proper for those to be present only who would go into the Democratic caucus and be in a position to carry out the wishes of the caucus or be bound by the results. But every member of the Alliance in good standing, irrespective of party, was not only invited, but requested to attend and were welcomed to every Alliance caucus. This I know positively, for I made such statement several times from the chair as the presiding officer of the caucus. Very truly and respectfully,

MARION BUTLER.

THE MUTUAL HELP ASSOCIATION

Let us Help One Another.

The workers create all property. They dig the ore, make and equip the railroads, make the bonds, and make the safes to preserve them in. The policemen and soldiers are armed, uniformed, housed and fed by them; the court houses are built by them; the law books are made by them; the law schools were built by them. The astronomer's observatory, the artist's studio, the poet's study the author's sanctum, and all their equipments, owe their existence to the workers. All the means of education are provided by the workers, and all the money with which "they are paid for their services" is of their own making.

The Extortioners create no property, but acquire it. More than nine-tenths of all the property in the United States now belongs to them. They acquire it

Singly, each worker is unable to extricate himself, or herself, from the toils of the extortioners, but in wise alliance with others the workers can become free and prosperous. "We are many—they are few.

We use the word "workers" as including all persons who earn their living honestly, either as producers, con-Ounces. Ounces. periment. Had they done so, undoubt- structors or distributors; as teachers, edly more of the fertilizer would have artists, physicians; or as managers or employers. All persons who earn their living honestly, or wish to do so, are invited to co-operate in the Mutual Help Association, and try to establish conditions under which the workers can own the wealth they create.

We must help ourselves. Let us not talk so much about what "they" should do as about what we will do. Let us co-operate wisely, and be faithful to each other, and we can establish egitable and mutually helpful connationally.

The specified "object" of the Mutual Help Association is-"To do all the good we can by scientific organization and association.

The "object" is comprehensive enough to include all the economies, that may be gained by association, and excludes no effort or aim that is good and practicable.

The co-operation of all persons who are in sympathy with the movement is earnestly invited. For terms of membership, address the General Secretary, pro tem,

WM. HARRISON RILEY. Townsend Centre, Mass.