

THE NORTH-CAROLINA STAR.

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NORTH CAROLINA.—"Powerful in intellectual, moral and physical resources, the land of our sires and home of our affections."

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AGRICULTURE.

GARDENING.

ROTATION OF CROPS.—Q. What is meant by the rotation of crops?
A. By a rotation of crops is meant a regular succession of crops, so that the same kinds shall not follow immediately.

Q. Why is a change of crops to be recommended?
A. Since plants of one sort consume the same elements of food contained in the soil, it follows, that the continued cultivation of the same plants will, more or less, deprive the soil of the elements on which they feed.

Q. Continue.
A. Where frequent and abundant manuring is given, regard to rotations is of no great importance, but in a garden poorly manured, and where, therefore, the dependence is on the soil itself for the nourishment of the crops, a rotation of them is absolutely necessary.

Q. But are there not many perennial plants which remain in the state ground for several years?
A. Such perennial vegetables as asparagus, sea-kale, chard, and artichokes, ought not to be displaced within less than eight or nine years, or until they begin to fail; but those valuable vegetables are so simply manured every year that they do not depend much on the soil for their support; yet where plantations of such perennials are broken up, vegetables of entirely different classes should be put in their room.

Q. What does Mr. Abercrombie say on this subject?
A. Mr. Abercrombie says: "We will suppose a strawberry plantation requiring to be renewed—and the stools seldom continue fully productive more than three or four years—instead of introducing young strawberry plants into the same bed, root out the old plantation entirely, and let it be succeeded by a crop of beans, or of some other excellent, or good-for-eating root, that may be different in constitution and habits. And let the new plantation of strawberries follow some light crop which left the ground in a good state, or which allows them to be trenched."

Q. Crops which strike deep and occupy the ground long, should be succeeded by plants which pierce but a little way under the surface.
Q. What is the simplest rule to be observed as to the rotations of annuals and biennials?
A. The most simple rule as to the rotations of annual and biennial vegetables is, that they should succeed each other as nearly as possible in different classes; for instance, the leguminous class, (peas, beans, and kidney beans,) which have deep-growing roots, should be followed by some of the numerous cabbage class, which comprises cauliflowers, broccolis, and turnips; the onion, or bulbous class, may best succeed the carrot or parsnip, or any other such deep-rooted kinds.

Q. Does garden soil require rest between the different rotations?
A. No soil to which manures can be applied ever requires what is called rest; the soil never becomes, as it were, tired of producing; all it requires is to be refreshed with those substances which may have been consumed by the plants it has nourished. If left uncultivated by the hand of man, it will produce rotations of weeds rather than be at rest.

Q. Is it not desirable to have within the year as many rotations as possible?
A. The greatest profit is drawn from gardens in which the crops are raised and consumed in rapid succession. The market gardener who can clear out a square of any sort of vegetables in a single week, and re-sow or re-plant it immediately with another kind of plants, makes more of his ground than the person who consumes his vegetables very slowly, and yet does not break up a square until the whole crop on it has been cleared off.

Q. In what way, then, may the rotations be most speedily made in a private garden, from which the vegetables are very gradually withdrawn?
A. Care should be taken, if possible, to clear off one row before another is entered upon, in order to prepare ground, without loss of time, for the commencement of a new rotation, which may be proceeded with by gradual sowing and planting. Thus, instead of selecting up and down a square the most forward cabbages, it may be better, when the ground is wanted and the season presses, for a new crop, to cut all the heads of one row before any of another be cut, even though these may be a little more advanced. The loss of a good season may be the consequence of waiting for the further growth of those plants that are in the way.

Q. By what other means may quick rotations be encouraged in gardens from which small supplies of any particular vegetables are required?
A. By taking care not to sow or plant more space with any crop than will be wanted at any particular season, no loss of time or of ground will be occasioned. Some allowance should always be made for waste and failures.

Q. What else should be observed as to rotations?
A. The seasons should be attended to, so that each rotation shall come as much as possible in its proper month or week, or in its due turn.

Q. May not the varieties of soil in the same garden, or the nature of the aspect and shelter, render it expedient always to sow or plant certain kinds of vegetables in the same portions of the garden, and thereby derange the course of rotations?
A. The peculiar condition of soil, aspect, and shelter, may render particular portions of a garden more fit than others for certain kinds of vegetables; in such cases, the regular and usual course of rotations may be dispensed with; but still many changes may be made in the successions of even the few vegetables cultivated in those particular parts of the garden.

NATIVE FRUITS.

There are many good fruits through the South that are "born to blush unseen and waste their sweetness on the desert air" without the fostering care of the horticulturist. It is generally admitted that the scuppernon grape is the child of the muscadine. How it was hybridized to change the color of skin and improve its aroma, we do not know, but in all its habits it is precisely like the muscadine; and seed planted from it produces the blackest kind of muscadine. There is a grape abounding all over the Southern States,

by many called the summer grape. It grows in any kind of soil, and like the muscadine, runs hundreds of feet, and bears fruit from bottom to top. There are two vines of grapes in this vicinity growing wild, and running over immense trees, that in all their habits are like the summer grape with branches formed like it. Yet one is a white grape with most delicious pulp, unsurpassed by any in cultivation, the other black, but equally as good; the summer grape is an acid, insupportable fruit, yet we do not, by some freak of nature, has produced both these varieties. We are taking measures to propagate from these two varieties and hope to be able to give a good account of them. Who knows but one may turn out a "Diana," and the other an "Isabella." We should preserve our natives, and experiment with them. The wild grape does not grow easily from cuttings; it may be grafted or layered, which is to cover the limbs with earth for a few inches, and they readily strike root. There is one delicious fruit common all over the South, growing wild in old fields, on hill sides, around ditches, which if it took the green house to perfect, would figure largely at the deserts of the wealthy; but as they spontaneously come forth, they are left as worthless to man. We speak of the May pop, a fruit superior to pomogranate, and we verily believe equal to the best Cuba orange. There are other fruits neglected because they are common. Who ever eat a full ripe persimmon that did not consider it equal to the best of plums and yet the persimmon tree is suffered to grow wild, without any attempt to improve its qualities by culture; and France, England, and the Northern States supply us with plum trees, which are too often cultivated, but for the breeding of curculios. Let us improve the fruit adapted to our own soil and climate first, and then acclimate others. The persimmon is the true American date, and might be made a source of luxury and profit.—*Soil of the South.*

From the Southern Christian Advocate.
A NEW AND VALUABLE CLOVER FOR THE SOUTH.

During the past spring I was much interested in examining a new species of clover, which is raised by two gentlemen in the vicinity of Forkland, Ala. This clover, when growing before blossoming, resembles the clover in some respects, but in others it is entirely different. The blossom is yellow, and the seed resembles the bean in shape, though it is but little larger than the seed of the red clover, and is contained in a very singular burr, which is about the size of a large pea. Again, this grass, roots and all, dies annually; yet the same piece of land never bears soon but once, as the seed is produced in very great abundance, and comes up very freely and surely every autumn. Again, it is entirely a fall and winter grass. It commences growing in October, and grows on finely through the whole winter, affording the finest pasturage, and continues, to grow well, if pastured, until the first or May; about this time the seed begins to ripen, and the grass gradually dies, and leaves the ground thickly covered with the dead branches and seed. When the cool fall rains and dew return, it then re-appears, and grows as before stated.

I have said that it yields an abundant crop of seed; indeed, the quantity of seed is so great, that it is a striking and very important peculiarity. From my own observations, and that of the gentlemen above alluded to, I have said, I am well satisfied that it will yield, on good land, at least 50 bushels, probably 100 bushels of seed in their burr per acre, and this will be amply sufficient to sow 15 or 20 acres thickly. This will render the clover exceedingly valuable to every Southern planter. From a lot of 5 acres of good clover, he will raise seed enough to sow 100 acres of cotton land, and thus secure a rich reward of grass to cover the land during the winter, and protect it from washing rains, and afford him the best pasture in the world. This is not mere fancy, for its growth on fair land is as luxuriant as lever saw of the red clover, on the finest lands in Virginia or Kentucky. I carefully examined a lot of this clover, which was closely grazed to the first of March last, and about the first of May a great many of its branches were four feet long. I have often admired the luxuriant pastures and meadows on the rich valley of the Ohio, but I think I never saw a better crop of grass in all my life than that was.

Any person who may be desirous of getting further information about this grass, can obtain it by writing to Dr. H. L. Keenom, or Mr. C. Knedore, Forkland, Ala. The letters should be post paid, as this is without their knowledge.

My apology for troubling you with this communication, (if one is needed,) is: I was brought up in agricultural pursuits, in the rich and beautiful valley of the Ohio, where the fertility of their lands is easily increased an hundred fold, by a judicious system of grazing; and ever since I became a citizen of the South, I have regretted to see her richest land rapidly wasting away without hope of future improvement; and I desire, as a sincere lover of my adopted home, to call the attention of planters to the above named grass, because I firmly believe it can be made "incalculably valuable to planting interests of the South."

Forkland, Ala.

HILL MANURING.

There is a custom prevailing in some places, which I think cannot be approved of by the best farmers—namely, manuring the corn crop in the hill, with barn-yard manure. In behalf of the custom it is urged that a greater quantity of corn to the acre can be raised in this way, and that the manure can be raised to cover a greater space. The fact is, it is a forcing system; the idea is the making a good crop, not the general improvement of the land. If the season prove moist, a good crop may doubtless be raised in the way named; but should the season prove dry, the manure in the hill will "strangle" more than benefit the crop. The only advantage gained, is in giving the corn a start. As to covering over a greater space of ground, I can only say that I think an even culture the greatest beauty of farming, and my dislike to the system in question is, that it militates against this. Corn is a crop, the roots of which run out every where in search of food; if manure is spread evenly over the surface, as soon as the roots of corn begin to extend themselves they will be sure to find it, and at a time, and in such quantity, as is best suited to the growth and development of the plant—and the ensuing season our eyes will

not rest upon an uneven field of oats; here a tall cluster of spikes, and there an army of dwarfs. I have stood some distance off and looked over a field treated in this way, and could count, where every hill of corn had been the season before. Such a system of husbandry is not calculated to improve our worn-out land. We want an even culture calculated to benefit the whole, not a part of the land. Broadcast applications of manure, evenly spread over the surface, are always the best.—*H. C. W., in the Albany Cultivator.*

LAWS OF NORTH-CAROLINA.

BY AUTHORITY.

AN ACT

To prohibit obstructions to cart ways in Cherokee county.

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That whenever any cart way is or shall be hereafter laid out, in the county of Cherokee, according to 33rd section of the one hundred and fourth chapter of the Revised Statutes, and the petitioner shall have paid the damage assessed, it shall not be lawful for any one to obstruct the same by erecting or keeping any gate or bars across such road or cart way, under the penalty of five dollars for every week such obstruction shall be continued; to be recovered before any justice of the peace.

[Ratified 27th January, 1851.]

AN ACT

To amend an act, passed at the Session of 1848-49, entitled "An Act to open and improve the road from Salisbury Stone's, in Forsyth county, to the Virginia line, near the mouth of Wilson, in Ashe county."

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That the road from Glenn's Ford, on the Yadkin-river, to Elijah Thompson's, shall remain as the road is at present located and at the present grade, and shall be kept in repair as other roads are in this State.

Sec. 2. Be it further enacted, That this act shall be in force from and after its ratification, and that all laws and clauses of laws, coming within the purview and meaning of this act, be, and the same are hereby repealed.

[Ratified 28th January, 1851.]

AN ACT

Concerning Rutherford.

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That Wm. H. Miller and Alben G. Logan, of the county of Rutherford, William M. Carson and Wm. Murphy, of the county of McDowell, be appointed commissioners to lay off a road from the town of Rutherfordton to the town of Marion, the nearest and most practicable route.

Sec. 2. Be it further enacted, That W. H. Miller and A. G. Logan of the said county of Rutherford; David Corpening, J. H. Pearson, of the county of Burke, be appointed commissioners to lay off a road from Rutherfordton to Morganton, the nearest and most practicable route; and that the commissioners on the part of Rutherford county lay off a public road from Rutherfordton to the South Carolina line, the nearest and most practicable route, towards Spartanburg Court House.

Sec. 3. Be it further enacted, That it shall be the duty of said commissioners to proceed to lay off said roads as soon as practicable, having taken an oath before the clerk of their respective county courts to discharge their duty with a faithful observance of the good of the public, and a due regard to private interests; they shall make the said road and assess the damages sustained by any person through whose lands the said roads may pass, and shall make return of their proceedings, in writing, to their respective county courts.

Sec. 4. Be it further enacted, That it shall be the duty of the county courts of the counties through which the roads may pass to appoint assessors over said roads, dividing the same into such sections as they see proper, and assign the lands to each section; and any overseer neglecting to open and work out said road or roads, shall be liable to indictment and punished as overseers are now provided by law.

Sec. 5. Be it further enacted, That said roads, when established, are declared to be public roads.

Sec. 6. Be it further enacted, That said roads, when established, are declared to be public roads.

Sec. 7. Be it further enacted, That this act shall be in force from and after its ratification.

[Ratified 29th January, 1851.]

AN ACT

To prevent more effectually the corruption of the slave population.

Sec. 1. Be it enacted by the general Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That hereafter it shall not be lawful for any white person to play with any slave or slaves at any game of cards, or any game of hazard or chance whatsoever, whether for money, liquor or property or not; and any person so offending shall be subject to indictment, and, on conviction, shall be fined or imprisoned at the discretion of the court; Provided that such imprisonment shall not exceed six months.

[Ratified 28th January, 1851.]

AN ACT

To amend an act, passed at the Session of the General Assembly of 1848-9, chapter 93, entitled an act to amend an act, passed at the last Session of the General Assembly entitled "An Act to provide for the apprehension of runaway slaves in the Great Dismal Swamp and for other purposes."

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That the act of the General Assembly of the Session of 1848-9, Chapter 93, entitled an act to amend an act, passed at the last General Assembly entitled an act to provide for the apprehension of runaway slaves in the Great Dismal Swamp, be, and the same is hereby repealed, so far as the same relates to the

zens and residents of the counties of Beaufort and Hyde.

Sec. 2. Be it further enacted, That this act shall be in force from and after its ratification.

[Ratified 28th January, 1851.]

AN ACT

To facilitate the taking of testimony before referees, arbitrators or other commissioners.

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That hereafter when an order of reference or order to take testimony, shall be made in any suit pending in either of the Courts of this State, it shall be lawful for either the Clerk of the Court in which such order may be made, or the persons to whom the same may be directed, to issue subpoenas or other legal process to compel the attendance of witnesses; and any referee, arbitrator or commissioner, to whom any such order may issue, shall have full power and authority to administer oaths, and to record the default of witnesses in like manner as is now allowed by law in the several Courts of this State.

Sec. 2. Be it further enacted, That whenever the default of any witness may be recorded as prescribed in the above section, the same shall be certified in writing, to the Court in which the suit may be pending, and recorded by the Clerk of said Court in the proper case; which shall be deemed a sufficient record on which to ground a *scire facias* against such defaulting witness at the instance of the party injured thereby.

Sec. 3. Be it further enacted, That all persons summoned as witnesses before any Clerk, Clerk and master in Equity, referee, arbitrator, or other commissioners as herein prescribed, shall be entitled to receive the same pay as is now allowed to other witnesses; and their attendance to be proved before the person or persons taking their testimony and taxed as the other costs in such suit.

[Ratified 24th January, 1851.]

AN ACT

Concerning depositions.

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That one Commissioner shall have power to take depositions hereafter, in all cases whatsoever; and that all laws and clauses of laws requiring any greater number, be, and the same are hereby repealed.

Sec. 2. Be it further enacted, That this act shall be in force from and after its ratification.

[Ratified 28th January, 1851.]

AN ACT

To authorize the investment of trust funds in the bonds and certificates of the State.

Sec. 1. Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That it shall and may be lawful for all guardians, executors and other persons holding moneys in trust for the benefit of others, to invest the same in any bonds or certificates which have been or may hereafter be issued by this State, or which the State may in any manner be held as responsible by endorsement or otherwise.

Sec. 2. And be it further enacted, That for all such investments thus made on account of any trust funds whatever, it shall be lawful for the persons making the same to settle and pay off the debts or obligations on account of which the said moneys may have been held, by the transfer of any bond or certificate, which they may have received for such investment, as well as in discharge of any interest which may have accrued on the same, any law to the contrary notwithstanding.

[Ratified 28th January, 1851.]

RESOLUTION

Concerning Acts of Assembly.

Resolved, That the Secretary of State have all the Acts of Assembly hereafter furnished the several Clerks of the several Counties in this State, well bound in good leather, for the use of their respective offices.

Resolved, That it shall be the duty of the clerks of the several county courts of this State to furnish the Secretary of State, during the month of November, 1852, and every two years thereafter, with a correct list of all the Justices of the Peace in their respective counties.

[Ratified 28th January, 1851.]

RESOLUTION

To authorize the President and Directors of the Literary Fund to loan three thousand dollars to "Chowan Female Institute."

Resolved, That the President and Directors of the Literary Fund be authorized to loan to the "Chowan Female Institute," the sum of three thousand dollars, out of any moneys not otherwise appropriated, when the Trustees of said Institute shall give bond and sufficient security for safety of said loan, and the payment of the interest semi-annually; when the President and Directors of the Literary Fund shall have on hand that amount of money uninvested, or not required for the purpose of common schools.

[Ratified 15th January, 1851.]

A RESOLUTION

Authorizing a loan of two thousand dollars to the Trustees of Mount Pleasant Academy, in the county of Cherokee.

Resolved, That the President and Directors of the Literary Board are hereby instructed to loan to the Trustees of Mount Pleasant Academy, in the county of Cherokee, two thousand dollars, the same being secured by bond and good personal security, and the interest accruing thereon paid semi-annually; provided, the Literary Board may have any money on hand not already invested, or likely to be called for, for common school purposes.

[Ratified 8th January, 1851.]

RESOLUTION

Concerning the State Arsenal at Fayetteville.

Resolved, That Duncan G. McKee be authorized to have the State Arsenal, at Fayetteville, as constructed and repaired, as to preserve the arms of the State; and that the Governor be authorized to draw on the Treasurer for moneys to defray the expenses of the same, not exceeding six hundred dollars.

[Ratified 28th January, 1851.]

RESOLUTIONS

Granting land for a Church.

Resolved, That ten acres of the unurveyed land, in the county of Cherokee, belonging to the State, be, and it is hereby given to the Baptist denomination in the vicinity of Fort Hembree, for the purpose of building a church thereon.

2. Resolved further, That the Secretary of State be authorized to issue a grant for the same, after it shall have been surveyed and its boundaries described, on condition that ten cents per acre be paid to the agent of the State, and his receipt forwarded to the Secretary.

[Ratified 28th January, 1851.]

RESOLUTIONS

To appoint certain persons commissioners to make an award in the case of the Literary Board and the Messrs. Cosby.

Whereas a difference has arisen between the Literary Board and the Messrs. Cosby, the contractors for the building of the Deaf and Dumb Asylum, and it being desirable to have the matter settled at an early day and to the satisfaction of the parties interested:

1. Be it therefore Resolved, That Thomas D. Hogg and William F. Collins, together with James E. Allen, of Oxford, and Jacob W. Holt, of Warrenton, be appointed commissioners to settle the matter in dispute, according to the principles of equity and justice; and that their award, or the award of any three of them, shall be final; and that the Literary Board be authorized to execute the same.

2. Resolved further, That Messrs. Allen and Holt be allowed five dollars per day for their attendance on said board, to be paid according to the award of said commissioners.

[Ratified 28th January, 1851.]

RESOLUTION

For the relief of certain purchasers of Cherokee lands, residing in Macon county.

Resolved, That the benefits of an act of the present session of the General Assembly, to provide relief for certain purchasers of Cherokee lands, shall be extended as well to those purchasers in Macon county who bought in 1836, as those who bought in 1838.

[Ratified 28th January, 1851.]

From the Richmond Times.

THE EARTH'S ROTATION RENDERED VISIBLE.

Who is there that has not heard men deny (long since the days of Galileo) the fact of the earth's rotation on its axis? We, at least, have known more than one instance of stubborn incredulity, and, if the truth could be disclosed, we suspect about half of every civilized community, to say nothing of the savages, believe, in their hearts, that there is no reality in what the astronomers say about the matter. Some palpable, easily intelligible demonstration of the fact, is therefore highly desirable, not merely as a contribution to science, but for the purpose of dissipating popular error. The last advices from Europe contain descriptions of a remarkably beautiful and ingenious experiment, which may now be seen in Paris, and may actually be said to make the rotation of the earth visible to the eye. We subjoin an account of it, though not a perfectly satisfactory one, from a London paper, which, with a highly discreditable jealousy, fails to mention the name of the inventor, who is M. Foucault, a young French Savant who was, recently, very near receiving the high honor of being chosen as the successor of Gay Lussac in the Academy of Sciences. If his reputation rested on nothing beside this experiment, his name would be indelibly written on the roll of fame.

The Paris correspondent of the National Intelligence gives a translation of M. Foucault's exposition of his experiment, which we have not by us as we write. It may aid the explanations of the London Globe, that the great principle of the pendulum in its simple form of a ball suspended by a wire or thread, supposed to be a mere line without weight, is that when the ball is once put in motion, it will vibrate in the same plane, in reference to absolute space, without respect to any change of position in the opposite extremity of the wire, or the point of suspension. If the earth revolves on its axis once in twenty-four hours, the point of suspension of such a pendulum must, of course, in that time, describe a circle. But, if the ball of a pendulum, capable of vibrating for twenty hours, moves during that whole period in the same plane in which it starts, the revolution of the earth must cause the ball to describe at every vibration over a horizontal surface beneath it, a slightly different line, until, in six hours, its apparent plane of vibration shall have described a quadrant, in twelve a semi-circle, and in twenty-four a complete circle. M. Foucault verified this reasoning by the extremely simple contrivance described in the following article, and by means of which one may see as direct an effect of the earth's rotation, as the apparent revolution of the sun, but which it is impossible to explain with that hypothesis.

[From the London Globe, April 5.]

THE ROTATION OF THE EARTH RENDERED VISIBLE.

The experiment now being exhibited in Paris, by which the diurnal rotation of the earth is rendered palpable to the senses, is one of the most remarkable of the modern verifications of theory. Although the demonstration by which the rotation of the earth has been established by such a convincing manner to the minds of all who are capable of comprehending it, to which nothing can be assigned to act, either force or cleanness, nevertheless even the natural philosopher himself cannot regard the present experiment without feelings of profound interest and satisfaction, and to the great mass, to whom the complicated physical phenomena by which the rotation of the earth has been established are incomprehensible, this experiment is invaluable. At the centre of the dome of the Pantheon a fine wire is attached, from which a sphere of metal, four or five inches in diameter, is suspended so as to hang near the floor of the building. This apparatus is put in vibration after the manner of a pendulum. Under and concentric with it, is placed a circular table, some twenty feet in diameter, the circumference of which is divided into degrees, minutes, &c., and the divisions numbered.

Now, it can be shown by the most elementary principles of mechanics, that supposing the earth to have the diurnal motion upon its axis which is imputed to it, and which explains the phenomena of day and night, &c., the plane in which this pendulum vibrates will not be effected by this diurnal motion, but will maintain strictly the same direction during twenty-four hours. In this instance, however, the table over which the pendulum is suspended will continually change its position in virtue of the diurnal motion, so as to make a complete revolution round its centre.

Since, then, the table thus revolves, and the pendulum which vibrates over it does not re-

volve, the consequence is that a line traced upon the table by a point projecting from the bottom of the ball will change its direction relatively to the table, from minute to minute and from hour to hour, so that if such point were a pencil and that paper were spread upon the table, the course formed by this pencil during twenty-four hours would form a system of lines radiating from the centre of the table, and the two lines formed after the interval of one hour would always form an angle with each other of 15 deg., being the twenty-fourth part of this circumference. Now this is rendered actually visible to the crowds which daily flock to the Pantheon to witness this remarkable experiment. The pretensed eye of a correct observer, especially if aided by a proper optical instrument, may actually see the motion which the table has in common with the earth, under the pendulum, between two successive vibrations. It is, in fact, apparent that the ball, or rather the point attached to the bottom of the ball, does not return precisely to the same point of the circumference of the table after two successive vibrations.

This is rendered visible the motion which the table has in common with the earth. It is true that, correctly speaking, the table does not turn round its own centre; but turns round the axis of the earth; nevertheless, the effect of the motion relatively to the pendulum suspended over the centre of the table, is precisely the same as it would be if the table moved once in twenty-four hours round its own centre, for although the table be turned, in common with the surface of the earth, round the earth's axis, the point of suspension of the pendulum is turned also in the same time round the same axis, being continually maintained vertical about the centre of the table. The plane in which the pendulum vibrates does not, however, partake of this motion, and, consequently has the appearance of revolving once in twenty-four hours over the table, while, in reality, it is the table which revolves once in twenty-four hours under it.

KNOWLEDGE IS DEMOCRATIC.

The few remarks which we are now about to make, are applicable to men of every age and in every condition of life. "Knowledge is power" is only desirable because of those things which it can purchase to gratify the desires, but there are some things which can be purchased with wealth, and knowledge is one of them. Wealth can purchase houses, lands, and titles, and a man may sit down and enjoy the fruits of his acquisitions, and he may be the legal successor to thrones, armies, and navies; over all these he may exercise dominion and be their possessor, but no man was ever born an heir to knowledge. An idiot may be born a prince or lord, a fool among beggars, while the son of a beggar may be more than a prince among kings, and more than a titled lord among magistrates. Books, teachers, and money may be lavished to procure knowledge, but the individual cannot obtain it from teachers or books, without personal effort. Knowledge can only be obtained by labor, and without this no man can obtain it; and however poor a man may be, if he labors to acquire knowledge, he cannot fail of success according to his exertions.

The amount of labor he expends in the search of it. The nobles and magnates of European nations are well aware of the "power of knowledge." This is the reason why they have endowed splendid colleges to which they send their sons to labor as well as plebeians; some must labor, in acquiring knowledge. Knowledge, therefore, is democratic; it is true that more time and means may be at the command of the rich than the poor, and in this respect the former have the decided advantage; but they are brought to the same level in one respect, they must work. One acquires knowledge faster than another, all have not the same faculties, but talent is in the mass. The majority of great men have sprung from the people. Shakespeare, Newton, Franklin, Watts, Burns, Fulton, &c., were men of the people, the workers—plebeians born; but kings of mind, while crowned monarchs beside them are but kings of mud.

There is another wrong notion abroad respecting a "learned man." Some suppose that a man cannot be learned unless he is a great astronomer, or can speak twenty or thirty languages, and so on; and others that a man must be profoundly acquainted with all the sciences. There are very few who acquire a profound knowledge of more than one science, as a single science requires a lifetime of study. Such men as Humboldt and Henry are exceptions, but although a few men become eminent in a number of sciences, the fact is beyond dispute, that a man must pursue continually one branch of science to become profoundly versed and eminent in it.

We talk of this and that influence, leveling the mass of men upwards, but the great elevator and democratic reformer is knowledge. The well behaved intelligent man is respected although he may be poor, and we wish this fact to be spread far and wide, and to be felt by every man. The possessor of knowledge who enjoys the simple pleasure of reading, is more richly speaking, than the rich ignorant man and he feels conscious that he has the means of gratifying a desire—of enjoying an enjoyment (tautological though the expression be) of a more pleasurable nature than any which can be enjoyed by the most wealthy barbarian who cannot say his A B C.

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THOMAS DE QUINCY, the English opium eater, is thus described by a correspondent of a Worcester paper:

"I have met De Quincy in the course of my peregrinations over this terra-a