

NOTICE.

As the subscriber has it in view to move to Georgia or Florida, he offers his Plantation for sale, lying 7 miles north of Charlotte, containing about 400 acres.

April 18, 1831. 3631

MY HOUSE, (the Post-office) on the Cross street, a few yards north-west of the Court-house, in Lexington, N.C. is again opened for the reception of Travellers & Boarders.

HOUSE, SIGN AND ORNAMENTAL PAINTING, Paper-Hanging, Glazing and Gilding.

NATHAN B. CARREL tenders his thanks to his friends for the very liberal encouragement they have given him in his line of business since he came to this place, and respectfully informs them and the public, that he has connected himself in business with his brother.

N. B. All kinds of Job Painting neatly executed, and at short notice. Charlotte, Feb. 15, 1831. 21

200 GALLONS LINED OIL for sale, by the barrel or gallon, by N. B. CARREL. March 14, 25

NATHAN BROWN, CARRIAGE MAKER.

He has in his employ good workmen, together with his own unremitting, assiduous and most strict attention to business, he flatters himself that he will be enabled to render general satisfaction to all those that may favor him with their patronage.

REPAIRING of every kind done on the shortest notice, and on the most moderate terms. The Blacksmithing Business is carried on by Alfred Hainer, on the most extensive scale, in all its various branches, and on terms as moderate as any Smith in the place.

STATE OF NORTH-CAROLINA, MECKLENBURG COUNTY. Superior Court of Law—Full Term, 1830. Jane B. Whitley vs. Jonathan R. Whitley. Petition for Divorce.

IN this case it appearing to the satisfaction of the Court, that the defendant is not a resident of the State, therefore ordered, that publication be made for three months in the Western Carolinian and Miners' & Farmers' Journal, for the defendant to appear at our next Superior Court, to be held for the county of Mecklenburg, at the Court-House in Charlotte, on the 5th Monday after the 4th Monday in June next, and plead, answer or demur, to said Petition, and the same will be taken pro confesso and judgment rendered thereon.

WITNESSES: J. A. Henderson, Clerk of our said Court, at a sitting on the 6th Monday after the 4th Monday in September, A. D. 1830, and in the 55th year of our Lady's reign. SAM'L HENDERSON, C. M. S. C. L. 3m32—price adv. 25

STATE OF NORTH-CAROLINA, MECKLENBURG COUNTY. Court of Pleas and Quarter Sessions, February Term, 1831.

Hugh Harris vs. Allison Orr. Original Attachment, levied on a tract of land adjoining Samuel K. Pettus, Hugh Harris and others containing about one hundred and forty-five acres.

IN this case, it is ordered by the Court that publication be made six weeks in the Miners' & Farmers' Journal, that unless the defendant Allison Orr appear at the next Court to be held for said County, at the Court-House in Charlotte, on the 4th Monday in May next, and reply to the property levied on and plead to issue, the plaintiff will be heard ex parte and have judgment pro confesso. Test: ISAAC ALEXANDER, C. M. C. Cit33—price adv. 25

SHERIFFS' DEEDS, FOR Lands sold for Taxes; for Lands sold under a Writ of Fieri Facias; and for Lands sold under a Writ of Venditioni Expositis—for sale at this Office.

POETRY.

MEMORY.

Come Memory, come! let me ponder awhile, Though the dream be too blissful to last; For oh! 'tis so sweet a kirt hour to beguile— To brighten the wreath of one's woe with a smile, Newly culled from the joys that are past.

These joys that are past, but they leave no regret, In the fair mould of innocence cast; And though the bright sun of their glory is set, In life's dim horizon their memory yet Sheds a beam on the days that are past.

They are gone—they are fled like the wild flash of light, Ere the thunder howls grim through the waste; But the traveller still on that pathless night, 'Mid the tempest and storm's irresistible might, Will remember the gleam that is past.

And still in life's wane, ere my care-stricken heart Shall return to its long home at last, Will Memory ever its pleasure impart, By pointing, as Time's rapid moments depart, To the joys of the days that are past.

ONE WORD WITH THEE.

A popular new Song—words by Montgomery. One word with thee, when the day-light is dying, When the breezes of evening o'er rosebuds are sighing— In the bower we love, when the moonshine is And o'er all our fondness, again we are dreaming, The word with thee, when the daylight is dying, When the breezes of evening o'er rosebuds are sighing.

One word with thee! one word with thee! One word with thee, 'tis the last I may say, Nor sigh that these hours have faded away; For fondler are coming for those that are gone, And pleasures shine round us, as we journey on. One word with thee, &c.

SCIENTIFIC.

From Stillman's Journal of Science.

Analysis of the Protogaea of Leibnitz; by Prof. E. MICHNELL, of the University of North-Carolina.

As any science advances towards perfection, its early history, though not always a matter of great importance, becomes nevertheless an object of interest. In stating the doctrines held by contemporary philosophers, we cannot well avoid some reference to the opinions of those who have preceded us in the same field of investigation and discovery, and if they are mentioned at all, it may well be claimed that the account given of them should be fair and accurate.

I have supposed that a very brief analysis of the Protogaea of Leibnitz might be acceptable to the readers of the Journal, and I am the rather inclined to offer it because of the erroneous character of view of that work in a recent geological publication of Professor Brande.

Among the correspondents and opponents of Woodward, we meet with several authors whose works are never read, and whose names were almost entirely forgotten memory, and among them Leibnitz, who, towards the end of the 17th century, published his Protogaea, in which there are little more than crude and improbable speculations, relating to the agency of fire upon a supposed chaotic mass.

It may be useful, before proceeding to the proposed analysis, to notice the circumstances which had directed the mind of Leibnitz to the subject of geology, and prepared him for the composition of this work.

No individual of the age in which he lived, had formed so intimate an acquaintance with all the different departments of knowledge. "That extraordinary genius," says Gibbon, speaking of Leibnitz, "embraced and improved the whole circle of human science;"—he remarks, however, in another place, that "he may be compared to those heroes whose empire has been lost in the ambition of universal conquest." He had made chemistry a particular object of attention in early life. On the death of the Elector of Mentz, the Duke of Brunswick Lunenburg became his patron, and establishing himself at Hanover in 1677, the next ten years of his life were spent chiefly in that city.

Most of the valuable mines in the Hartz being within the territory of the Duke, who derived a considerable revenue from them, and the successful prosecution of operation there being obstructed by the accumulation of water, the mechanical ingenuity of Leibnitz was put in requisition for creating the means of draining them. What was the exact amount of time and thought that he devoted to this object it is perhaps impossible after an interval of a century and a half to determine. It is probable, however, that he was a kind of director or superintendent of mining operations in the Hartz, during a considerable part if not the whole of these ten years. In an application made by him for a post in the service of the Emperor in 1680 or '81, he stated that his attention was much occupied with his business, which however, he then hoped would be finished, so far as he was

concerned, in the course of a few months. The mountains are about forty miles from Hanover. He had evidently made himself familiar, by personal observation, with the whole district of the Hartz, and with all the processes of mining and metallurgy practised there. The appearances presented in the mines could hardly fail of leading a mind like that of Leibnitz, to some speculation on the causes by which they had been produced, and to the composition of a work like the Protogaea. It is from this quarter that many of his facts and illustrations are drawn. In 1687 he went to Italy, to collect materials for a history of the House of Brunswick, and when in that country did not neglect the opportunity that was offered of prosecuting his geological enquiries and observations.

It appears from a passage in the 14th section, that the Protogaea was composed soon after his return to Hanover, 1691, when he was forty-five years of age. Like most of his other writings, it is a short tract, such as would occupy a space of fifty pages only in this Journal. It is illustrated by twelve plates, prepared by the author, containing representations of shells, ichthyolites, teeth of mammifera, and other organic remains. A "schediasma" or abstract of the work, (how full I am unable to say, but it is spoken of as containing only "primas lines"—a mere outline,) was inserted by Leibnitz in the Leipzig Acta Eruditorum, for January, 1693. The Protogaea itself then lay in manuscript till 1749, thirty-three years after his death, when it was at length published, with a dull impertinent preface, half as long as the work to which it is attached, by Scheide. From the manner in which the abstract in the Acta Eruditorum is referred to, in two or three places in his letters, it may be conjectured that the author thought well of his performance, and felt a considerable anxiety to learn the opinions of others respecting it.

The Protogaea is divided into forty-eight sections or chapters, of which the first five, after the introductory one, are upon the primeval condition of the globe and the deluge; the next sixteen treat principally of mineral veins and the causes by which they have been produced; thirteen relate to organic remains, especially shells; and the last thirteen to the caverns of the Hartz, amber, alluvium, turf and other miscellaneous matters. A more particular account of the different sections is subjoined.

1. Some reasons are assigned for the composition of the ensuing treatise, as (a.) The importance of the subject, giving value to even a moderate acquaintance with it. (b.) The enterprise in which he was about to engage, of writing the early history of the House of Brunswick, and the Protogaea as an appropriate introduction; so that the merry author of the history of New-York, from the creation of the world to the end of the Dutch dynasty, is not without a precedent in the case of this illustrious author. (c.) The opportunities afforded by his peculiar situation, for acquiring information upon these subjects.

2. The form of the earth in the beginning was regular and its surface smooth, the mountains being of more recent date; because God makes nothing imperfect and because it was fluid. Its fluidity, which was the effect of heat, is proved by the existence of veins, crystals, and the remains of plants and animals, ("solida intra solidum clausa,") in the rocks.

3. The present aspect of the earth has been produced by conflagrations, succeeded by deluges. It was first a star or body ejected from the sun, lucid by itself, upon whose surface scoriae were formed; it cooled and ceased to be luminous. This is rendered probable by the circumstance that the rocks and scoriae from a furnace, are alike convertible by heat into glass, especially if certain salts be added; by which they are proved to have a common basis.

4. The moisture that had hovered in vapor around the hot globe, was condensed as its temperature sank, and being attracted by the ashes or remains of the recent conflagration, formed a lixivium or lye and thus created the salt sea. As the crust of the earth cooled, large cavities were formed in it, by the breaking up of which and the subsidence of the rocky masses, it was diversified with mountains and valleys. The inundations produced by these changes formed the more recent strata.

5. An enumeration of certain mountain ranges, which he supposes to be part of the original skeleton of the globe. He does not deny the smaller conflagrations, earthquakes, and deluges of less extent, have changed the aspect of particular countries. Mankind will decide these things more correctly, when they shall have more accurately examined the surface and strata of the earth.

6. The Deluge. It is proved by the occurrence of marine organic remains upon the mountains. A number of different theories of the modus operandi, by which the highest mountains were covered with water, are stated. He prefers the opinion, that the contents of vast caverns in the interior of the earth, were forced out by the filling in of the earth and rocks above, and that these superfluous waters afterwards found their way into other caverns, that had before been empty, and so disappeared.

7. The Brocken, inaccessible during the greater part of the year, and infamous in the surrounding country from concerts of owls, is described. The rivers rising near

its summit, are no valid objection to the theory that ascribes them to rain and snow descending from the clouds.

8. The metals are much more abundant in the surrounding mountains of less elevation, than in the Brocken itself. Metallic veins are well defined, as leaves or strata running far into the earth, of moderate thickness and different composition from the rocks in which they lie. They are divided into pendentes and cadentes, or beds and proper veins; the former of limited extent, the latter descending indefinitely. The effects of their concurrence, divarication, etc., are accurately stated. They are ascribed partly to deposits in horizontal beds, which were afterwards shifted into an inclined position, and partly to rifts in the crust of the earth, filled with matter rendered liquid by heat or a solvent. Diligent observation, rules, much superior to those now in use, may be found out for conjecturing the substances lying hid in the bowels of the earth. Valleys have every where been formed by the force of rushing waters or other violence, as is proved by the correspondence of the strata on their opposite sides.

9. For ascertaining the methods pursued by nature in the formation of mineral substances, it would be of advantage to compare them with the results obtained in the laboratory. "Neque enim aliud est natura quam ars quaedam magna." He will say nothing respecting the production de novo of the metals, or the possibility of the conversion of one metal into another; but places the stories of the regeneration of gold in sands that have been washed, and of the refuse matter of a mine acquiring new riches, on the same footing with those relating to subterranean pigmy miners and the discovery of treasures by means of the divining rod, by men who, if you blindfold them, will not detect the largest and best known veins. Metallic matter is drawn from some old mines in the Hartz, but it is a sediment brought in by water.

10. Native and artificial cinnabar, native zinc from the East Indies and that collected from the furnaces of the Hartz, native calamine and that which, rising in smoke from certain ores, incrusts the same furnaces, are cited as examples of an agreement between the products of nature and those of art.

11. Artificial resemble natural crystals, but the latter, whether produced by the refrigeration of a melted mass, evaporation or sublimation, being the result of a more intense heat than we are able to create, and of a process much longer than ours, are harder and more perfect. The forms of insects and grass, and the liquids sometimes seen in rock crystals, favor the idea that it has been formed from a solution.

12-15. Short and unimportant. Sulphuric acid is raised by natural sublimation and collected near Naples. Native gold and silver have been fused and received a form from the matrix in which they lie.—Some mineral substances owe their form to the motion of water alone, as the rounded pebbles found cemented in a rock in the Alps themselves; some are the effect of the combined agency of fire and water.

16. Of tufa, stalactites, and the caverns, whether great or small, in which they are formed—also of a cavern which emitted a vapor that took fire from a candle and burned some of the workmen. Toads sometimes found alive in the rocks.

18. Of the copper slates with ichthyolites of Eisleben and Osterode. The number of the ichthyolites, their size, and the accuracy of the delineation, prove them to be real fish and not lusus naturae. A lake was overwhelmed—the mud enveloping the fish hardened by heat into slate—the animal matter consumed or dissipated, and the metallic matter brought in to supply its place.

19. We are not to be incredulous in regard to the agency of subterranean fire producing the effects here ascribed to it, hardening the strata, fusing the mineral masses, and producing crystals by sublimation and the refrigeration of matter that had been melted or dissolved, inasmuch as earthquakes and volcanoes either now active, as in Italy, or extinct, as on the Moselle, prove the existence of an internal fire.

20. If the idea is preferred that the copper slates have been hardened by time or that they have been produced by a lapidific and metallic vapor, he will not dispute the point, though he considers this opinion less probable—only let it be allowed, that these are real fish and not mere appearances like those of Luther and the Pope shown at Eisleben, where you would never have discovered the resemblance had it not been pointed out to you.

21. These fish were overwhelmed by some great convulsion. Salt springs as well as shells, are a proof that the sea once covered what is now dry land. Steno's treatise solida intra solidum, is referred to with approbation. Different catastrophes have produced in succession, three different varieties of dry land—the lofty mountains, hills of moderate elevation, and the low level shores of the ocean.

22. As shells are found upon high land, it has been supposed by some, that the mountains were raised by the elasticity of an interior wind or vapor. Small effects of this kind may have been produced, but so far as the great ranges are concerned, the opinion is inadmissible. Some accounts of the prodigious effects of wind—probably in a great measure fabulous.

23-35. Of organic remains. They have been observed from the most ancient times, and in all parts of Europe. The Spanish ambassador at the court of Persia saw them in the lofty mountains of Caramania. That they are real remains is proved by their variety, shape, color, and other properties which are so well marked, that the species can be studied in the rocks as well as in a cabinet. Some of them are entire and others broken, and sometimes there is merely a cast; they are not therefore, a simple and direct product of nature. They have no roots, but are separated by well defined limits from the rock in which they lie. The more accurately they are examined, the stronger will be the conviction that they are real remains, whereas, the representations of men and buildings sometimes found in the rocks, must be viewed at a distance, or the illusion vanishes. Their number, and the species is not known to exist in the living state, as is the case with the cornu Ammonis, no objection. They may have been accumulated on certain points by currents, and brought from distant regions or the depths of the sea that have never yet been explored. Analogues of the mineral species are detected in greater numbers as observations are more extended amongst the living races. In proportion as men are more diligent in the business of observation and better acquainted with nature, they are more apt to adopt the opinion espoused by Leibnitz. Such as embrace different views are deceived by the fables of Kircher, Becher and others, who find not only plants and animals but historical facts exhibited in the rocks, and tell of whole fields strewn with the leg bones of giants. These remains are quite distinct from certain crystals that are mentioned, and the other geometry of unimpaired nature. The glossopectra of Luenberg, are described and stated to be shark's teeth and not to differ from those of Malta, that are so much valued for their medicinal properties—they may not be altogether without virtue as a medicine. Sect. 33 is a long enumeration and description from Lachmann of different species of shells. 34. On bones, apparently of the elephant, found in the caves and laid bare by the rivers of Germany. The ivory tusks dug up in Russia and America may belong to the Walrus. If they are real elephant's bones, the habits of the animal or the condition of the earth must have changed, so that the limits beyond which he does not range must be more confined than formerly, or they may have been transported from a distance. 35. Of the remains of an unicorn dug up in Germany—fabulous, judging from the figure, and in bad taste, inasmuch as it violates Horace's rule of not associating discordant organs in the same animal.

36-7. Description of the caves of Scharzfeld and Blackenburg in the Hartz with their bones and teeth—"aliqui tantae magnitudinis ut ad nota nobis animalia referri non possunt." The same caves are described by Buckland in his Reliquiae Diluvianae.

38. Of amber. The figures of leaves, mosses, and insects preserved in it (the substances themselves are wanting,) favor the idea of its vegetable origin.

39-41. Of the alluvial of rivers, etc.—the mouths of the Rhine, the Rhone, the Po, the Nile, with some others, are cited as examples.

42-3. Account of the succession of strata under the town of Mutina in Italy and its wells. After descending nearly seventy feet, a pointed instrument is driven downward, on withdrawing which, the water rises quite to the top and flows over upon the surface of the earth. The ascent is so rapid that the workman is in danger of being drowned; an explanation is given to which it is not necessary for us to attend. As an example of the accumulation of earth in some situations, the well known fact is stated, that we now descend to get into the Pantheon of Agrippa instead of ascending as the Romans did by a number of steps when it was first built.

44-5. Of fossil wood whether petrified or retaining its vegetable character—dug up in Germany and other parts of the world—a simple statement of facts.

46. Of turf—its origin and the manner of preparing and using it—it is reproduced very slowly if at all.

47-8. Of a subterranean forest and the succession of strata observed in digging a well two hundred and thirty feet in depth under the town of Amsterdam.

It will be apparent from the above abstract, that Leibnitz does by no means merit the reproaches that have sometimes been heaped upon him as (at least in this department of knowledge,) a mere visionary system builder. The science of mineralogy was yet to be created when he wrote, and his treatise therefore, contains but little that can be valuable to a geologist of the present day. But its defects are chargeable upon the age in which it was written rather than upon Leibnitz. Good sense, and the indications of patient and accurate observation, pervade every part of it, and we may venture to assert, that if examined instead of being condemned at hap hazard from its title, it will be found not unworthy of the genius and fame of its illustrious author.

University of North-Carolina, Jan. 31st, 1831.

He that is a good man, is three quarters of his way towards the being a good Christian, wheresoever he lives, or whatsoever he is called.—South.