

Miscellanous.

[Written for the Bradford Porter.]

Essays on Geology.—No. 8.

"Ages again, with silent revolution,
Brought morn and even, noon and night, with all
The old vicissitudes of Nature's aspect:
Rains in their season fertilize the ground,
Winds sow'd the seeds of every kind of plant
On its peculiar soil; while suns matured
What winds had sown, and rains in season
watered,
Providing nourishment for all that liv'd."

On the formation of the Tertiary rocks.—All natural phenomena in the material world are but the results of the operations of the immutable laws of nature. It is the ever varied aspects under which nature presents her phenomena to us to which we apply the term change. CHANGE is stamped by nature on all we see around us.—Every day of our lives we see multiplied instances of its operation, and see the record of those changes stamped on that which was the subject of them.—We thus learn to draw legitimate inferences of nature's operations in numerous instances where these operations have not been seen by us. Thus when we see the full grown oak, we know with certainty in our minds the changes it has undergone, and legitimately predict its final decay. We know too, that the strong lion was once a helpless whelp, and the marble statue a shapeless block of stone.

The changes which these have undergone have been within the reach of vision, and we ourselves have seen their development. Where these changes have been, the results of our own mechanical skill we calculate the amount of exertion in us, and the amount of time required to produce them.—Where they are the effects of the laws of nature acting on organic matters we can calculate with some accuracy the time required to produce them. We thus learn to associate time, and a cause with every visible change.

When we take larger objects as the subject of our contemplations, as the earth on which we live, we are at once struck with the order that prevails amid its seeming confusion, but owing to our circumscribed vision, and the limited period of our observation, we too apt to conclude that its present appearance was stamped on it at the time of its creation or at least to overlook those great changes which a comprehensive view shows us have taken place. We are pleased with the murmur of the mountain's rivulet, but forget that every murmur is working a change in its stony path; we admire the noble river but forget that it bears in its waters the minute fragments of every rock that has been touched by its tributary streams; we contemplate the ocean with its fluxes and its refluxes, its gentle waves and its tempestuous billows, as being now fixed by the bounds that creation gave it, and forget that every wave leaves its record in its sandy shores and that every rebounding billow begins in its bosom a portion of the continent that has stayed its course and hastens to deposit it where deeper waters sleep in a more peaceful bed.

Such causes as these with their seemingly trivial changes, have within the human period of our globe swept its lands with their rocky bases into the deep hollows of the sea, or transported them to distant planes, and enlarged a continent, or built an island. Geology teaches us that during the lengthened periods that our earth has existed, these changes have caused the variety that we see in the rocks of our fossiliferous mountains, and that their present elevation was not caused by the waters of the ocean diminishing, but by these mountains and continents being elevated from their watery bed by the influence of internal causes, while other portions have been submerged to maintain an equilibrium in the pressure of the earth's crust on the internal fluid of our globe.

It is not my design in this essay to notice the repeated oscillations that the surface of our earth underwent during the formation of the fossiliferous rocks, but to advert to changes our present continents have undergone by this change of elevation since their first existence as continents, and the rocks that have been formed during these changes.

There is a series of stratified rocks that have been formed since the elevation of our continents from the bed of the ocean that are called the Tertiary rocks. These are composed of beds of sand, clay, limestone, and conglomerates, that are sometimes indurated and sometimes earthy in their texture, and frequently containing in them the remains of plants, and animals of present existing species, together with some of the more ancient species of marine shells. The tertiary formation rarely occupies very extensive tracts, but is usually found filling up basin shaped areas of the older rocks. The points now occupied by the tertiary formation seem to have been the sights of ancient lakes or estuaries to which the sea at times had excess, while at others they were filled with fresh water. This is shown by the different strata containing alternately marine and fresh water shells. In estuaries this might be accounted for by flowing of rivers and the flowing of the tides, but there are many inland

areas now occupied by this formation where this mode would be entirely precluded. Geologists ascribe the production of this formation to the repeated elevation and submerging of portions of our continents, whereby portions of them have been alternately subject to the influence of aerial and subaqueous causes. This formation comprises all the rocks that lie above the chalk and the diluviums. It rarely occupies very elevated position, although near Naples it is found at an elevation of near four thousand feet. Paris stands over one of these basins that is now filled with tertiary rocks. London also occupies a tertiary tract. In the United States it is found occupying the valleys of the Hudson and the Connecticut rivers, and much of the sea coast from Maine to Louisiana. We have patches of the same formation in the valley, showing that it was formed before our continent had assumed its present stability. The tertiary formation of our valley, seems to be destitute of fossils, and I am not aware that they are found abundant in any part of this formation in the United States. That of the Paris basin, however, is the great repository from which Cuvier drew that chain of animal progression that connects the animal existence of our own period of the globe, with those distant epochs whose periods were peopled with earth with an existence essentially its own and dependent on, and suited to the condition under which it existed.

THE MOTHER.—Who is it moulds the character of our boys, for the first ten or twelve years of their life? Not their father—for such are his engagements, or such the reserve or stoutness of his manners, that sons but rarely come in contact with him. No—it is in the gentle and attractive society of the mother; it is in her affectionate bosom and her lap, that the blossoms of the heart and mind begin their bloom; it is she who bends the twig, and thus decides the character of the tree. How, then, ought she to be accomplished for this important office! How wide and diversified her reading and information! How numerous the historic models of great men with which her memory should be stored! How grand and noble the tone of her character!

THE CONSTITUTIONAL ARMY.—The boys and girls in our common schools—the standing army. These soldiers are citadels which rise up around us, the noblest bulwarks against ignorance, that worst enemy of the human race.—Whoever builds a school house, or teaches a good school, is erecting the strongest monument to freedom. If the time shall ever come when this great government shall totter, when this Beacon, now the sign and wonder of the world, shall wax dim, the cause will be found in the ignorance of the people. "And the people perish for the lack of knowledge."

CONFIDENCE IN GOODNESS.—There is something very winning and endearing in confidence. Who could take away the life of a bird which had fled to his bosom from the pounce of the hawk? Or who could take advantage of having him in his hand, to deprive the little trembler even of his liberty? Nothing is ever lost by trusting in the ingenuous and noble minded: they always feel a responsibility to repay the trust reposed in them. What, then may we not expect from the God of all comfort?

ADVERSITY.—A black cloud makes the traveler mend his pace and mind his home;—whereas a fair day and a pleasant way waste his time. Whatever others may think of it—yet I take it as a mercy that now and then some clouds come between me and the sun; and many times some troubles do conceal my comforts; for I perceive if I should find too much friendship in my ion, in my pilgrimage I should soon forget my father's house, and my heritage.

LOOK HERE!—If you've anything to do go and do it! There's nothing so abominable as a loafer, an idle drudge, who has no business of his own but to go from store to tavern, and from office to office, lounging round counters and chairs, dealing out scandal and talking about the girls. If you have anything to do, go and do it; and if you haven't anything to do, why find something.

POINTED REPLY.—"You have played the duce with my heart," remarked a gentleman to a young lady, who was partner in a game of whist. "Because you played the knave," replied the lady smiling.

NATURE'S SEASONS.—Summer may be called the poetry of nature. Autumn her blank verse. Winter her prose. Spring the first blossoming of a youthful bard, emulous of excellence and fame.

A WOMAN'S WILL.—"How is Mrs. W., your client, this morning?" said one of the members of the bar to another. "I think," said the person addressed, "she is dying: I drew her will yesterday." "Then I think," replied the first speaker, "she will recover; for every one knows a woman is always better for having her will."

DEATH.—There is a solemnity in the thought of a recent death, which will associate itself with the very walls from whence we are conscious that a soul has just taken its flight to eternity.

REFORM.—Attempts at reform, when they fail, strengthen despotism—as he who struggles tightens those cords he does not succeed in breaking.

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THE WIFE.—It is not unfrequent a wife mourns over the alienated affections of her husband, when she has made no effort herself to strengthen and increase his attachment. She thinks, because he once loved her, he ought always to love her and she neglects those attentions which gained his heart. Many a wife is thus the cause of her own neglect and sorrow. The woman deserves not a husband's love who will not greet him with smiles when he returns from the labors of the day; who will not claim him to his home by the sweet enchantment of a cheerful heart. There is not one in a thousand so unfeeling as to withstand such influence and break away from such a home.

GOOD ADVICE!—Girls are somewhat deceiving in their appearances. Most of them wear false smiles, false color, false bosoms, and false hips, false retrospective projections, vulgarly called "bustles." Young men who think of committing matrimony, should be careful and never get taken in by fastening their affections upon any of the female tribe, who are made up wholly of falsities; for, like the feathers off there is nothing left of them.

A SHOWER OF PUPPIES.—A Paris paper states that this morning, the 9th September, 1843, a shower of puppies fell from the heavens in an orchard of the parish of Saint Giles de Laval. Punch has since ascertained that the said puppies, for bad behavior, had been kicked out of the dog star, and that pots of bear's grease may every day be expected from Ursa Major.

THE LATEST YANKEE INVENTION.—An old maxim, "it is impossible to catch a whale by a pig's tail," has been taken up by a Yankee, who procured one stripped off the skin, dried it, and having cut a mouth piece, now discourses most eloquent music upon it. The next thing will be to accomplish that other proverbial impossibility, "to make a silk purse out of a sow's ear."

DOMESTIC TRANSCENDENTALISM.—Folks don't go to bed now-a-days—they retire. Nobody eats their dinner—people take some refreshment. Nobody goes to church—but people attend divine service. There is no Sunday—it is Sabbath. No one got his tooth pulled—he has it extracted.

LEFT HANDED.—A gentleman observing an Irish servant girl who was left handed, placing the knives and forks in a similar position on the dinner table, remarked to her that she was laying them left handed. "Och, indeed," said she, "so I have—I have, please, sit, to help me turn the table around."

DOWRY.—The best dowry to advance the marriage of a young lady, is, when she has in her countenance mildness; in her speech wisdom; in her behavior modesty; in her life virtue. These are more valuable than money.

NINE HUSBANDS.—At Birdroke, was buried in May, 1831, Martha Brewitt, who was the wife of nine husbands successively. The text at her funeral sermon was—"Last of all the woman died also."

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THE NEW BOOTS.—An Irishman who had blistered his fingers by endeavoring to draw on a pair of new boots, exclaimed, "Faith, I believe I shall never get them on until I wear them a day or two."

DEATH.—There is a solemnity in the thought of a recent death, which will associate itself with the very walls from whence we are conscious that a soul has just taken its flight to eternity.

REFORM.—Attempts at reform, when they fail, strengthen despotism—as he who struggles tightens those cords he does not succeed in breaking.

NOT BAD.—Joe Smith's Kirkland Bank notes have the appropriate vignette of a shepherd shearing his flock.

Recent Time for Study.

The busiest workman can spare some moments. If you mean to get wisdom you must learn the value of moments. Great attainments have been made in these little snatches. Whether you work or play, do it in earnest; but never be unemployed an instant. Unstable and indolent people lose much of life in thinking what they shall do next. Always have a book within reach, to catch up at your odd moments. It is incredible, until trial has been made, how much real knowledge may be acquired in these broken scraps of time. Resolve to edge in a little reading every day, if it is but a single sentence. The man who pursues this method will infallibly become learned. Take a little time for reading from each end of your night's rest. If you can gain fifteen minutes a day, it will shake itself at the close of the year. I have some times thought that the mind acts with double vigor when forced into the brief periods of application. By degrees you will learn to save moments from work. And in the long winter evenings, you will certainly be inexorable, if you do not devote an hour or two to your books.

Alternation of Crops.

Is unquestionably one of the best and most economical means of preserving fertility, and of increasing the profits of the farm. All crops exhaust the soil, more or less, of the general elements of fertility, though all do not exhaust it alike of certain specific properties. It is believed that every plant requires a specific food, which other families do not stand in need of, and which they do not take up. This is evinced by the fact, that wheat cannot be profitably grown on ordinary land, in two successive years, upon the same field without a great falling off in the product. And it is now laid down as an axiom in good husbandry, that two crops of any small grain should never be taken from the same field in successive years, because they draw too largely upon the same specific food. But after an interval of four or five years, in which grass and roots intervene, the specific food of the wheat crop has so accumulated in the soil that this grain may then be again profitably grown upon it. So with all other crops, not even excepting the grasses. The law of nature's change in the products of a soil is palpable, that in Flanders and Holland, where flax is one of the profitable staples, they do not think of cultivating this crop upon the same ground oftener than once in ten or twelve years. Our farmers, some of them, seem to appreciate these truths in reference to tillage crops, without duly reflecting that they apply as well to grain. Meadows, too, deteriorate in a few years; the finer grasses run out, because the soil becomes exhausted of the particular food which affords them nourishment; coarse or nutritious plants take their place, and the herbage becomes inferior in quality, and greatly diminished in quantity. Upon an average, old established meadows would yield double their present crops, if judiciously alternated with grain and root crops. The terms, "suitably divided into meadow, plough, and pasture lands," which are generally employed to recommend farms on sale, are an indication of bad husbandry, and very often betray the secret which compels the owner to sell. Excepting in every acre of land which produce good grasses, may by being rendered dry and rich, be made to produce good grain and roots. In the convertible system of husbandry, permanent meadow, or plough lands are almost unknown—every field produces in turn, crops of grain, grass and roots.

There are three classes of crops which alternate beneficially with each other, viz:—1st. Grain or corn, or dry crops, which mature their seed and most exhaust the fertility of the soil. 2d. Grass crops; and 3d. Root or green crops, embracing turnips, potatoes, beets, clover, &c. In old meadows and pastures, not only the better grasses disappear, and coarser herbage and fonses come in, but the soil becomes too compact and hard to admit the free extension of the roots, and the genial influence of the sun, dew, and atmosphere, which are primary agents in the process of vegetable nutrition. Tillage corrects these evils. It clears the soil of weeds, and converts them into sources of fertility; it breaks and pulverizes the soil and fits it for the return of the grass crop at the close of the rotation; while the vegetable matter of the sward contributes to augment the grain or root crop which is to follow. All green crops are more or less fertilizing when buried in the soil; but clover is to be preferred, as well on account of its enriching properties to the soil, as that it also affords hay and pasture. The practice of sowing clover seed with grain crops is adopted by some farmers every year. Judge Bael followed this plan; but he ploughed his field the following year. The food which this clover affords to the coming crop richly compenses for the cost of the seed and sowing, to say nothing of the pasture it gives in autumn. Hence, tillage is admirably calculated to fit and prepare the ground for grass—while grass, in return, directly or indirectly, furnishes an abundance of food for grain or roots. The fertility of a soil depends essentially upon its power to absorb water by cohesive attraction, and this power depends in a great measure, upon the state of division of its parts—the more divided they are, the greater is their absorptive power. The crop upon a hard compact soil, will suffer from drought; but if this soil is finely pulverized and broken, it will suffer much less. The first may be compared to the rock, which receives moisture upon its surface only, the latter to its whole mass, and which retains it for a long time.—*Piscataquis Farmer.*

DELICATE CONSOLATION.—Favor wrote to a friend in London—"Button, the great naturalist, has just lost his wife. He would be inconsolable for event, were it not for the pleasure he anticipates in dissecting her."

A FRIM LADY.—She looks as if she were fed with a quill; and when she opens her mouth to yawn, you would fancy she was going to whistle.

GREAT MEN.—No great man lives in vain. The history of the world is but the biography of great men.

WM. TROUT, & OTHERS.—June, 1843.

STOVES.

The Yankee Shop Revived!!

NOW on the south side of the public square, in the building adjoining the Claremont Tavern house, owned by N. Tuttle, where the subscriber does not hesitate to say that he has received from the State of New York, the BEST article of STOVES ever brought into Towanda, such as Croseet's pt. in. Cooking Stoves, elevated over An assortment of Parlor Dining Room Cooking, Cylinder Coal, shapes, A quantity of Six Plates, of different sizes and Which are now for sale as low as any other establishment in Towanda; or elsewhere, for ready pay. Wheat and oats received in part pay for the above named stoves, and in addition to the above bill customers will always find Stove Pipe and Ellows, of all sizes on hand, with an Assortment of Copper, Tin and Sheet Iron WARE,

wholesale and retail. Ease-trough conductors, sheet iron drums, with all other kind of job-work made and fitted up on short notice, and in a workmanlike manner.

The undersigned would render his most sincere thanks to the public for previous patronage, and respectfully solicits a share of the same for the future. D. C. HALL.

Towanda, Oct. 23, 1843. 21-6m

Watch and Clock Repairing.

W. A. CHAMBERS,

RESPECTFULLY informs his friends and the public, that he still continues to carry on the above business at his old stand, one door south of Thomas Elliott's store, and nearly opposite the Hay Scales.

Watch and Clock Repairing,

will be done on short notice, and warranted to be well done. From a long experience in the business, he believes that he will be able to render perfect satisfaction to all who may favor him with their patronage.

CLOCKS.—A large assortment, just received and for sale very low for cash.

Towanda, September, 1843.

SADDLE, HARNESS &

TRUNK

MANUFACTORY.

THIS SUBSCRIBER respectfully inform their old friends and the public generally that they are carrying on the above business in all its various branches, in the north part of the building occupied by B. Thomas, as a Hat shop, c. Main street, nearly opposite Mercur's store, where they will be happy to accommodate old and new customers.

SADDLES, BRIDLES, MARTINGALS, HARNESS, WHIPS & C. & C.

CARPET BAGS, VALICES, TRUNKS, COLLARS, WHIPS & C. & C.

of the latest fashion and best materials will be made to order on moderate terms for ready pay.

Most kinds of country produce will be taken in exchange for work.

ARNOUT & CULP.

Nov. 13, 1843.

D. Vandercreek—Cabinet Maker.

CORNER OF Main & State streets, Towanda Pa.

KEEPS constantly on hand, all kinds of Furniture, made of the best materials and of the latest fashion, which will be sold on better terms for cash than can be had in any other establishment in the world.

Towanda, Oct. 10th, 1843.

NEW BLACKSMITHING

ESTABLISHMENT.

THIS SUBSCRIBER has taken the Blacksmithing Shop on the west side of Main street, in the south part of the Borough, where he is prepared to execute all orders in his line such as HORSESHOEING, CARRIAGE & COACH WORK and EDGE TOOLS.

Having learned his trade thoroughly, and had considerable experience in the business, he is able to say that his work will bear comparison with that of any man in the country or city.

He would refer to G. H. Drake, for whom he has made the iron work for carriages for the last two years. The patronage of the public is so limited.

N. B. Country Produce received in payment for work.

HENRY ESENWINE.

Towanda, May 30, 1843.